

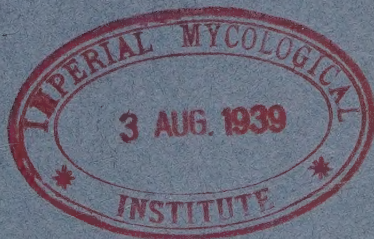
VOLUME XIV

No. 3

GOVERNMENT OF NORTHERN IRELAND
MINISTRY OF AGRICULTURE

MONTHLY REPORT

JULY, 1939.



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GOVERNMENT OF NORTHERN IRELAND
MINISTRY OF AGRICULTURE

MONTHLY REPORT

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CONTENTS

	PAGE
AGRICULTURAL CONDITIONS:—	
CONDITIONS AT 1st JULY	152
THE CROPS, SUPPLIES AND PRICES	153
LIVE STOCK	156
DAIRY PRODUCE	158
ARTICLE:—	
Fruit Crop Prospects, 1939	159
MARKETING SCHEMES:—	
Agricultural Marketing (Pig Industry) Act (N.I.), 1934:—	
PIG PRICES FOR JULY	165
GRADING STATISTICS	167
COST OF STANDARD PIG RATION	169
Bacon Industry Act (Northern Ireland), 1939:—	
SALES OF PIGS FOR CURING	169
Marketing of Eggs Acts (N.I.), 1924-1937:—	
NORTHERN IRELAND EGG PRICES	169
LONDON EGG PRICES	170
The Cattle Industry (Emergency Provisions) Acts, 1934 and 1935, and The Livestock Industry Act, 1937:—	
SUMMARY OF PAYMENTS	171
NUMBERS CERTIFIED FOR SUBSIDY	171
AVERAGE PRICES OF CERTIFIED CATTLE	172
Wheat Act, 1932:—	
ADVANCE PAYMENT TO REGISTERED GROWERS	172

AGRICULTURAL NOTES:—

SEASONAL FARM NOTES	...	...	...	...	...	...	173
SEASONAL LIVESTOCK NOTES	...	...	...	...	...	...	174
SEASONAL GARDEN AND ORCHARD NOTES	...	...	...	...	...	...	176
SEASONAL POULTRY-KEEPING NOTES	...	...	...	...	...	...	178

ANNOUNCEMENTS AND REMINDERS:—

GENERAL	...	...	...	...	...	...	180
SCHOLARSHIPS IN AGRICULTURAL SCIENCE	...	...	...	...	...	...	181
SCHOLARSHIPS IN HORTICULTURAL SCIENCE	...	...	...	...	...	...	182
SCHOLARSHIPS IN CREAMERY MANAGEMENT	...	...	...	...	...	...	182
COMPULSORY LICENSING OF BULLS	...	...	...	...	...	...	183
SCHOOLS NEWS	...	...	...	...	...	...	183
SEVENTEENTH EGG-LAYING TEST AT STORMONT	...	...	...	...	...	...	184

AGRICULTURAL INDEX NUMBERS:—

MONTHLY INDEX NUMBERS OF PRICES	...	...	...	...	...	...	189
PRICES USED IN CALCULATING INDICES	...	...	...	...	...	...	191
MINISTRY OF LABOUR RETAIL PRICES AND INDICES	...	...	...	...	...	...	192

AGRICULTURAL PRICES:—

FEEDING STUFFS AT SPECIFIED CENTRES	...	...	...	...	...	...	193
FEEDING STUFFS (WITH CALCULATED VALUES OF PROTEIN AND STARCH EQUIVALENTS)	...	...	...	...	...	...	194
TRADE IN LIVESTOCK AT BELFAST AUCTION MARTS—							
PRICES OF FAT STOCK IN JUNE	...	...	...	...	...	...	199
PRICES OF OTHER STOCK IN JUNE	...	...	...	...	...	...	201
LIVESTOCK AT FAIRS	...	...	...	...	...	...	202

AGRICULTURAL TRADE RETURNS:—

SHIPMENTS OF LIVESTOCK FROM NORTHERN IRELAND PORTS	...	...	...	...	...	203
IMPORTS AND EXPORTS OF AGRICULTURAL PRODUCTS	...	...	...	...	...	204
NUMBERS OF CATTLE AND ACCOUNT OF TRADE AT FAIRS	...	...	...	...	...	205

MINISTRY OF AGRICULTURE

MONTHLY REPORT

JULY, 1939.

It was fortunate for farmers last month that the drought conditions came to an end before the pastures and crops were seriously affected. The country has shown considerable improvement, and the condition and health of livestock are now satisfactory.

Pastures have returned to a normally healthy condition, and crops are also looking well.

Hay making has been impeded by the rain, but this is the one depressing factor in the conditions, otherwise brighter than for some time past.

It is early yet to forecast the acreage that will be affected, but it is clear from reports that many farmers are intending to take advantage of the financial assistance offered by the British Government for ploughing up grassland. A start has already been made on many farms, and the rains have proved of benefit to breaking up operations.

This month's issue contains an article on the fruit crop prospects for the current season. Apart from slight hold-ups earlier in the season, caused by frost, weather conditions have been favourable generally to fruit production.

AGRICULTURAL CONDITIONS.

AGRICULTURAL CONDITIONS AT 1st JULY, 1939.

The early summer weather experienced throughout May continued into the earlier part of June, conditions remaining very dry and warm until the beginning of the second week when temperatures fell to lower levels. Less settled weather followed this change, and for the remainder of the month heavy rain showers were fairly frequent in a period of cooler weather in which bright sunny spells were numerous but of short duration.

Good progress was made with farm work during the earlier part of the month. With the hay crop ripening rapidly under the warm sunshine it was possible to commence hay-making earlier than usual and the work of cutting and saving upland hay proceeded very easily under the excellent conditions prevailing up to the middle of June. Since the arrival of the rains the work has suffered considerable interruption, but farmers welcomed the showers for the reason that they brought relief from the situation created by the drought in regard to other growing crops and pastures badly in need of moisture.

Pasture lands were in a poor state, especially on heavy clay land, which had become baked, and also on light soils, but in fields where manuring had been adequately done in late autumn and early winter, grass remained fairly plentiful during the unusually long spell of warm and dry weather. The recent rains have wrought a good service to all grazing land however, and the position of graziers has thus been greatly eased. Similarly the crops of grain, flax and roots benefited appreciably from the moister conditions and have made a good recovery. The growing hay crop also received a much needed stimulus and, provided they are saved satisfactorily, seeds and meadow hay should give relatively heavier yields than the upland crop. At all events it seems likely that the quality of this season's hay will be much better than last should conditions remain reasonably satisfactory. It was learned that some of the early saved upland hay is of excellent quality.

Although pastures showed appreciable recovery at the end of June they are still generally below normal, and providing much less sustenance for stock than is usually available at this time of year. In many cases the bareness of grasslands necessitated the use of home-grown fodder crops, which was continued on a number of farms. Supplies of old hay have been further reduced and the surplus stocks carried over to next season will be lighter than usual. Home-grown oats and potatoes were, however, generally adequate and their cheapness continued to be taken advantage of in supplementing the feed for live stock. Good supplies of purchased cakes and meals were steadily available at prices which maintained a slight downward trend throughout the month.

As will be gathered from the foregoing, grazing stock were adversely affected by the drought conditions, especially the shortage of grass, and in some cases the lack of good supplies of drinking water in certain areas. Cattle especially made only a slow thrive, and many exhibited at fairs and other sales were in a thin and backward condition for the time of year. Sheep and lambs also suffered from the abnormal parched conditions, particularly in hilly districts, but to a less marked extent than cattle. The trend of trade for these classes was in the main slow and lifeless, as graziers were operating on a very restricted scale for store cattle with the supply of good grass being very scarce and the demand for beef showing some signs of unsteadiness during the warm weather. More recently there has been some improvement, but the general outlook is still viewed with some uncertainty, particularly in regard to store cattle. Sheep and lambs remained in fairly steady request, and the seasonal downward trend in values was generally less marked than usual in the case of prime lots. The health of all livestock is about normal, and no disease outbreaks of undue dimensions or importance were reported.

Apart from the completion of tillage work in late districts, activity on the farm last month was mainly directed to hay-making in the early districts, and the care and cultivation of other crops such as the moulding and spraying of potatoes. A few farmers, however, found it possible to make applications of lime, and to some slight extent of basic slag and other fertilizers, to land mostly under tillage, whilst many made a start with the ploughing up of old grassland in order to share in the financial assistance for this work to be given by the British Government. The rains will be of great benefit for these operations, as well as for all undertakings excepting hay-making, which must perforce suffer to some extent.

THE CROPS.

WHEAT.—Drought had a detrimental effect on the growth of this crop, but it made some recovery following the rains, and is now in good condition and promises to give fairly good yields in most districts.

OATS.—While the weather in the early spring was unfavourable for the sowing of oats, the Subsidy encouraged farmers to grow this crop, and it is expected that the returns of the total acreage for this year will show an increase over those for 1938.

The brairds of the growing crop suffered from the lack of moisture during the very dry and hot spell extending into June, but some improvement has taken place since the middle of last month when moister conditions arrived just in time to relieve the growing anxiety occasioned by the unusually long period of severe drought. It seems generally likely that this season's crop will give good results, both in regard to quality and quantity of the produce. So far, comparatively little damage has been done by leatherjackets or wire worms, only a few instances being reported.

White oats at local markets during June declined further in supply. Prices were lower, the average quotation falling by $1\frac{1}{2}$ d. to 5/4d. per cwt. Very small quantities of oat straw were marketed. Prices on the whole fluctuated around recent levels, but on average appreciated by 8d. to 41/11d. per ton.

FLAX.—Early sowings of flax made excellent growth and are doing well, but as a general rule late sowings were hampered by the drought and have just begun to make a recovery following the recent rains. The prospects for this season's crop are, on the whole, satisfactory, but it seems likely that the returns of the total acreage will have a slight reduction on the year.

HAY.—Haymaking began under ideal conditions in the early part of the month, and the cutting of the upland crop proceeded rapidly in the early districts until the weather became unsettled. A good deal of the hay had already been saved by then, and it is learned that the quality of the hay was generally excellent, although the bulk was lighter than usual. It is generally considered that these remarks will apply to most of the hay harvested this year, but seeds and meadow hay which are still growing may increase in bulk following the rains, and yield up to normal dimensions. It was learned that tripods were used in some of the early districts during the rainy spell, and that harvesting operations were proceeding satisfactorily during the favourable periods towards the close of the month.

There was a further drain on supplies of the old crop last month, necessitated by the scarcity of grass. Fair supplies are still available. The surplus to be carried over into next season will, it is feared, be rather shorter than usual. In some districts where the new crop is likely to be light in yield, and where grass is scarce, it is feared that with a shorter carry-over, and a lighter new crop, supplies available for next season may be of rather smaller dimensions than usual.

Considerably decreased supplies of hay were forward at local markets last month, and prices were much higher than in May. First and second year's upland hay appreciated in price by 6/- to 68/7d. per ton, and meadow hay by 5/- to 57/6d. per ton.

MANGELS.—Early sowings flourished and continued to do well, but the dry weather retarded growth, and late sowings suffered to some extent, and the brairds present a thin appearance in a fair number of fields. The work of thinning out the crop is now becoming general. It was reported that as a result of the drought weeds were much less troublesome than in former years. The most unusual feature, however, was that the mangel fly was active in one or two fields, and did severe damage.

TURNIPS.—The dry weather was generally unfavourable for this crop, but early sowings became firmly established before drought conditions were experienced, and continued to do well. Later sowings, however, were a failure in many instances, due to the exceptionally dry weather and soil conditions, and to attacks of slight ground frosts in some areas. The turnip beetle also wrought considerable damage. Second sowings were, therefore, generally common, and in some cases, third sowings had to be made. The recent rains have brought about a marked improvement, but the crop is generally backward. It is feared that production this year will show a decline. It is generally considered that the total acreage under turnips was smaller than in 1938, and it is feared that the yields would be lighter.

POTATOES.—Digging of the early varieties proceeded steadily in the early districts in order to satisfy trade demands, but, with this easing off and the haymaking requiring farmers' attention, lifting was temporarily suspended. This crop was generally planted a little later than usual, and digging operations were not generally begun until late on in the month. It was reported that the yields are poor in many cases as the plants did not appear to be so "birthy" as a year ago, and have been less so than in a normal season. The main crop varieties, planting of which was completed in May, made good growth during June, and are looking well at the moment. There were some partial failures owing to the drought, but these were of negligible dimensions, and the general prospects are very promising. Blight disease has not yet made an appearance, but preparations are well in hand for spraying the crop as a precautionary measure, following the arrival of moister conditions, when there is a greater likelihood of a general outbreak.

Fair stocks of old potatoes remain on farms. A good proportion of the tubers have kept well. Much of this produce is being fed to pigs and cattle as the shipping demands remained dull, and with supplies generally in excess of requirements, prices cheapened.

The following are the returns of weekly shipments from Northern Ireland ports to Great Britain last month, contrasted with those for 1938.

SHIPMENTS TO GREAT BRITAIN.

<i>Week ended</i>	<i>Tons</i>	<i>Week ended</i>	<i>Tons</i>
3rd June, 1939	2,046	4th June, 1938	3,068
10th " "	626	11th " "	2,398
17th " "	1,061	18th " "	1,335
24th " "	1,766	25th " "	1,193

The prices paid to growers by the shipping merchants fell away during the month to the following general levels recorded at the end of June.

WARE.

Variety	Bagged			
Up-to-Date	£1	0	0	to £1 5 0
Arran Victory	£1	0	0	to £1 5 0
Majestic	£1	10	0	to £2 0 0

Diminishing supplies of the old crop were offset by rapidly increasing quantities of new season's early varieties at local markets, for home consumption, and quotations for the old crop cheapened and averaged $2/5\frac{1}{2}$ d. per cwt. for June, as against $3/3$ d. for the previous month, and $4/11$ d. for June, 1938. The prices of the new crop of earlies also followed this trend, falling from $36/-$ per cwt., which was obtained for the first arrivals during the week ended 3rd June (Belfast only) to $13/-$ per cwt. at the close of the month. At the end of June, 1938, early varieties of potatoes at local markets were averaging slightly more than $10/-$ per cwt.

OTHER VEGETABLES.—With the exception of pamphrey, supplies of the principal vegetables at local markets during June were smaller as compared with the previous month, and carrots, parsnips and garden turnips disappeared from the markets. Price movements generally showed only slight variations. Pamphrey was again more plentiful, and $7\frac{1}{2}$ d. dearer at $2/3$ d. per dozen. Cauliflowers were $\frac{1}{4}$ d. dearer at $3/0\frac{1}{4}$ d. per dozen, while leeks were firm at 9 d. per bunch, and parsley $2\frac{3}{4}$ d. cheaper at $1/3$ d. per bunch.

LIVE STOCK.

CATTLE.—The normal thrive of store cattle was retarded by the backward state of pastures up to the first week of June, but since then a general improvement has taken place concurrently with the improvement in pasture land. A few cases of "red water" disease were reported, but not to any marked extent. Hand-feeding to cattle eased off with the arrival of rain, and at the end of the month the amount of hand-feeding being done had resumed normal seasonal dimensions.

Supplies of store cattle at fairs last month were on the small side and the enquiry was rather dull. Prices declined and many farmers were forced to part with stock at the lower prices owing to the scarcity of grass. Many cattle were unsold as graziers were in no position to purchase.

More cattle than normally are being fattened on grass, but with the drought they are late in being presented for sale, with the result that the numbers of fat cattle ready for June were somewhat lower than had been earlier anticipated. Those cattle that received some hand-feeding earlier in the season were in good condition, but other sorts were delayed. Hand-feeding was being carried on well into the month.

The supply of fat cattle at fairs was not quite up to normal dimensions for the time of year, but despite a rather weaker demand, prices remained more or less steady.

The condition and health of the dairy herds continued satisfactory during June. The milk yield was, however, below normal because of the dry weather and the flies. Calving was normal, only a very few cases of abortion being reported.

Supplies at fairs were again small. Demand was fairly steady and prices little changed. Best quality found a ready market at very satisfactory rates.

SHEEP.—The health of the flocks was very good and lambs thrived well during the month.

Small to medium supplies for the time of year were forward at markets and fairs. They were not in demand during the hot spell, but later the enquiry was more marked. Prices fluctuated on a rather lower scale.

WOOL.—Fairly good supplies of unwashed wool were available last month, and quality was up to a fairly high standard. Demand was fairly active and prices steady at from 7d. to 8½d. per lb. for long unwashed wool, 6d. to 6½d. per lb. for mountain unwashed wool. Crossbred unwashed wool fetched from 7d. to 7½d. per lb. at two centres.

PIGS.—Normal supplies of sucker pigs at fairs last month were of good quality. Demand opened on a firm note but fell away during the month. Prices followed a similar trend. Older pigs (i.e., those of from 12 weeks to 4 months) met a steady demand all month at slightly easier rates. Only small numbers of brood sows were exposed for sale and quality on the whole was fairly good. A variable enquiry had little effect on prices which remained steady at a general range of from £5 to £11 per head according to quality.

Pork in Northern Ireland last month continued plentiful at markets, and with a good demand a clearance was made at the prices fixed by the Pig Industry Council.

The weekly returns of (1) shipments of live pigs to Great Britain, and (2) purchases of dead and live pigs in Northern Ireland last month are compared hereunder, with corresponding details for 1938 in brackets.

Week ended	(1) Shipments to Great Britain.		(2) Bought dead and alive for curing in Northern Ireland.				Total	
			Dead		Alive			
1939								
3rd June	1,172	(1,318)	8,817	(9,143)	5,523	(3,275)	15,512	(13,736)
10th "	1,267	(1,289)	8,576	(9,489)	5,746	(3,240)	15,589	(14,018)
17th "	1,566	(1,278)	6,596	(9,078)	5,860	(3,145)	14,022	(13,501)
24th "	1,601	(1,329)	6,245	(9,115)	6,363	(3,459)	14,209	(13,903)
1st July	1,463	(1,530)	6,804	(9,460)	6,389	(3,564)	14,656	(14,554)
26 weeks ended	27,908	(46,305)	209,356	(229,578)	147,634	(77,319)	384,898	(353,202)
1st July								

POULTRY.—Supplies of live poultry offered at local markets during June included increased numbers of chickens and ducks, and slightly reduced numbers of hens. Prices were a little cheaper on the month, chickens being 3d.

cheaper at 2/8d. each, ducks 3¼d. at 2/2½d. each, and hens ¾d. at 1/7¾d. each. From returns collected from wholesale merchants, prices generally showed slight reductions in June from the previous month's levels, and the general ranges of prices obtained by producers on a live weight basis were: Chickens, large, 7d. to 8½d., others, 6d. to 7d.; hens, 4d. to 5½d.; ducklings, 7d. to 8½d., and ducks, 5d. to 6d.

HORSES.—Supplies of horses varied somewhat during June. On the whole a fairly good volume of business was transacted. Good quality horses continued to command high prices, and in some cases more money than of late, and other sorts remained firm. The following were the price ranges per head: Year-old foals, £9 to £15; unbroken colts (2-3 years), £18 to £30; good farm horses, £30 to an extreme top of £50, and older horses from £10 to £30 according to quality.

DAIRY PRODUCE.

MILK.—Smaller supplies of milk were delivered to creameries during June because of the effect of the dry weather on the dairy herds. Towards the close of the month, however, the yield improved. Prices paid by creameries for milk delivered (the separated milk being returned to the farmer) during June ranged from 4d. to 5½d. per gallon. The rate of equalisation payment for milk produced in Northern Ireland and delivered to creameries for manufacturing purposes was determined at 0.29d. per gallon for the month of May, 1939, in accordance with the Milk and Milk Products Acts (N.I.), 1934-1938.

BUTTER.—Supplies of farmers' butter were heavier at markets during last month than in May, both print and lump butter recording increases, and average prices cheapened by ¾d. to 1/2½d. per lb. for print, and by 1d. to 1/0¾d. per lb. for lump.

EGGS.—At certain representative market centres in Northern Ireland shorter supplies of hen and duck eggs were offered in June than a month earlier. The prices, as fixed by the Ministry of Agriculture for eggs, eased slightly early in the month but improved later, and maintained higher levels as shown in the table on page 170.

THE 1939 FRUIT CROP PROSPECTS FOR NORTHERN IRELAND.

Weather conditions in general have favoured this year's crop, and the prospects are much more promising than at this time a year ago.

Wet and cold weather during the winter and early spring made it difficult for growers to carry out seasonal work in their orchards and plantations, but reasonably good progress was made with cultivations, planting and general renovations. The spraying programme was also adhered to fairly closely, considering the difficulties encountered, and the rather limited opportunities for making applications of tar oil and petroleum washes to fruit trees. Whilst it was reported that this routine was done less satisfactorily in some districts on this account than was originally intended, there was evidence that many growers found it possible to give even greater attention to these precautionary measures, and it was learned that the seasonal programme of spraying, as advised by the Ministry, for the control of diseases and pests has been followed rather more closely than in previous years despite the inclement weather.

Wet and rather cool weather prevailing up to the end of April retarded growth, but this was advantageous in that the flowering stage was generally delayed until May, when exceptionally fine and warm weather was general. The absence of severe frosts at this critical stage was most favourable to all fruits, but some damage was reported to have been caused by late cold snaps in orchards and plantations where the air drainage is not good. Strawberries and raspberries were most seriously affected in a number of plantations, but, generally speaking, damage by frost was more or less restricted in extent and not confined to any particular kind of fruit or to any particular area.

With the early arrival of warm and dry weather at the beginning of May there followed a marked improvement in growth, and a profusion of blossom in most orchards. Only in comparatively few cases did apple trees fail to produce a good show of flowers, and in such instances this was attributed, in the main, to attacks of frosts, although in some trees it followed a year of poor leaf production. With such encouraging signs, and the weather continuing fine and dry, it was generally expected that good results would be obtained this year, particularly from trees of the Bramley's Seedling variety of apples, which were especially promising. The set of fruit was, on the whole,

very satisfactory, being particularly heavy on many trees although in some orchards pollination was disappointing this year. The unusually long spell of drought conditions which followed into June brought about a general thinning-out of the heavy set of fruit as the very dry and hot weather after petal fall caused a considerable proportion of the young fruits to drop, and therefore the potential crop was reduced to much smaller dimensions than was reckoned at the bloom stage. This thinning-out was, however, more advantageous than otherwise. The young fruits were beginning to suffer from the drought, more especially the soft fruits, but the timely arrival of rains last month has ensured that the crop in general, and apples in particular, will be much better than for last year, and rather above average in yield in many cases.

Tree fruits such as damsons, plums, pears and cherries are more promising than at this time a year earlier, and yields of fair to average dimensions are expected. Soft fruits suffered some damage from frosts, but with the higher temperatures ruling since April they have recovered and are now looking well, the rains in June having helped the fruits to develop. The general position of these fruits is also much better than that of last year, and according to present estimates, good to very good yields should be obtained.

TREE FRUITS.

APPLES.—Trees of the principal variety of cooking apples grown in Northern Ireland, Bramley's Seedling, are in an advanced stage of growth, and the prospects of high yields are very bright. Cold and very damp weather conditions in late winter and early spring retarded the development of the trees somewhat, and apple blossom time was not general throughout the country until about mid-May. The wealth of flowers then gave promise of a good season, whilst the settled weather conditions which followed helped in establishing a good set of fruitlets on most trees. Hot and very dry weather continued well into June; this slowed up growth and caused a considerable amount of thinning, which was generally considered to be of advantage, as the set was rather too heavy on most trees. It is also expected that the apples will be up to a high standard of quality and free from blemish. In those orchards where the trees of this variety are in a less promising state it was learned that early frosts wrought some damage, whilst the general absence of pollinators was stated to be the cause of a rather poor set of fruits in a few.

The other principal culinary variety—Grenadier—has done well in the most important districts, from a commercial standpoint, and average to good yields are generally expected. Similarly the other cooking varieties should give much better results than last year, both in regard to the quality and the quantity of the produce. Average to good yields are also expected to be harvested from trees of the dessert varieties.

OTHER TREE FRUITS.—While in a generally less satisfactory state than apples, the other tree fruits tabulated give promise of better yields than were obtained in 1938. Cool conditions in the early spring hampered the development of the trees, and some suffered damage from frosts. After the fruits had set well under ideal conditions the long spell of drought which followed brought about a general thinning of the crop. On the whole, however, fair to average yields should be obtained. The most promising accounts were received in respect of cherries and pears, whilst plums were reported to be fairly satisfactory on the whole. Damsons, although better than a year earlier, are expected to be only a fair crop in many districts.

BUSH AND SOFT FRUITS.

The absence of severe frosts this season was a most favourable factor for the production of these fruits, and whilst some damage was done to plantations by occasional occurrences in the late spring, it was comparatively slight. Later the arrival of early warm weather was most beneficial, and following a good show of flowers the fruitlets set under excellent conditions. A continuance of the hot and dry weather, however, retarded their development, and in some plantations it was feared that the crop would give a light return, with the fruits remaining small and having a withered-up appearance. The rains which fell in the second half of June, however, brought about a marked improvement in the general position, and it now seems highly probable that the yields in all cases will be of good dimensions.

Gooseberries are the most promising of the bush fruits, and with regard to the soft fruits there is very little to choose between raspberries and strawberries, but the former, perhaps, may be a little more promising, although late strawberries are doing very well.

The detailed position of the principal fruits grown in Northern Ireland is shown in the table on page 163 of this report, with comparisons for 1938.

INSECT AND FUNGOID PESTS.

As already mentioned, the weather conditions during the late winter and the early spring created many difficulties for growers intending to do the necessary amount of seasonal work in orchards, and spraying with tar oil and petroleum washes was, perhaps, less systematically done in some. On the other hand, many growers found it possible to carry through the winter spraying programme with more thoroughness than formerly was their custom. This is confirmed by the very large increase in the sales of these materials during the past winter. The weather helped in keeping down the spread of pests, and on the whole, it has been a comparatively trouble-free season. The

apple capsid bug and apple scab have, however, been fairly prevalent in some areas. A particularly favourable feature of the season was the general absence of aphides. Other pests encountered were American gooseberry mildew, cluster cup, and caterpillars.

As indicated in this report, sprayings have been done satisfactorily by most growers whose efforts should be rewarded with good crops of clean fruits this season.

ADVICE TO GROWERS.

In addition to the advice and assistance available to fruit growers through the services of the Horticultural Instructors, employed by the County Committees of Agriculture, the Ministry's leaflets contain information on various matters dealing with the production and marketing of fruit, lists of which appear regularly in the monthly Report. It should be noted that all advice and assistance available in this connection may be had free of charge.

NORTHERN IRELAND FRUIT CROP PROSPECTS, SEASON 1939.

COUNTY	APPLES			OTHER TREE FRUITS					BUSH FRUITS			
	Cooking Varieties		Other Varieties	Dessert Varieties	Damsons	Plums	Pears	Cherries	Strawberries	Raspberries	Blackcurrants	Gooseberries
	Bramley's Seedling	Grenadier										
Antrim ...	G. to V.G. (P.)	G. (P.)	G. (P.)	G. (P.)	F. (P.)	F. (V.P.)	F. (P.)	G. (P.)	A. (P. to F.)	G. (F.)	G. (P. to F.)	G. to V.G. (P. to F.)
Armagh ...	G. (V.P.)	A. (P. to F.)	A. (P. to F.)	A. (P. to F.)	P. to F. (V.P.)	F. (V.P.)	P. to F. (P.)	F. (P.)	G. (F.)	A. (P. to F.)	A. to G. (P. to F.)	G. to V.G. (P. to F.)
Down ...	G. to V.G. (P.)	G. (P.)	G. (P.)	F. (P.)	A. (P.)	F. (P.)	F. (F.)	G. (P. to F.)	G. (P. to F.)	G. (P.)	G. (P. to V.P.)	V.G. (P. to A.)
Fermanagh	G. (V.P.)	P. to F. (P. to F.)	A. (F.)	G. to V.G. (P.)	P. to F. (V.P.)	P. to F. (V.P.)	G. (F.)	G. (P. to F.)	V.G. (F.)	V.G. (P.)	G. to V.G. (P. to F.)	V.G. (P. to F.)
Londonderry	A. (F.)	F. (A.)	A. (F.)	A. (F.)	— (V.P.)	A. (V.P.)	A. (P. to F.)	F. (F.)	G. (A.)	G. (A. to G.)	A. to G. (F.)	G. to V.G. (F.)
Tyrone ...	G. (P.)	F. to A. (P. to F.)	A. (P. to F.)	G. (F.)	P. to F. (V.P.)	A. (V.P.)	F. (P.)	A. to G. (P. to F.)	G. (A.)	V.G. (F.)	G. (P. to F.)	G. to V.G. (P.)
Northern Ireland	G. to V.G. (V.P.)	A. (P.)	A. to G. (P. to F.)	A. to G. (P. to F.)	F. (V.P.)	F. to A. (V.P.)	F. (P. to F.)	A. (P. to F.)	G. (F.)	G. (F.)	G. (F.)	G. to V.G. (F.)

Abbreviations :—V.G.—Very Good. G.—Good. A.—Average. F.—Fair. P.—Poor. V.P.—Very Poor.
 The letters in brackets relate to the position of last year's crop at the corresponding date.

AN ACKNOWLEDGMENT.—The Ministry gratefully acknowledges the assistance rendered by growers in furnishing particulars of their crops, and by the Horticultural Instructors whose co-operation ensured that the report covered all districts.

THE APPLE CROP IN ENGLAND.

The following extract has been taken from the report just issued by the Ministry of Agriculture and Fisheries.

“Condition of the crop on 29th June, 1939, as compared with that on 30th June, 1938, the 1938 figures being shown in brackets:—

SCALE OF INDEX FIGURES.—0-20 = very bad; 21-40 = bad; 41-60 = fair; 61-80 = good; 81-100 = very good.

EARLY COOKING APPLES.—Kent, “Lord Derby” (30) 75, (others 25) “Grenadier” 90; Essex (25) 85; Hereford (20) 85; Cambs. (25) 80; W. Glos. (15) 80; Lincs. Holland (15) 80; E. Sussex (25) 80; Wisbech and W. Norfolk (15) 80; E. Norfolk (40) 75; W. Sussex (20) 75; Evesham and Pershore Area (45) 70; Devon (41) 60; Middlesex and S. Bucks. (40) 60; Tamar Valley (60-65) 35-40.

BRAMLEY'S SEEDLING.—Evesham and Pershore Area (18) 85; Hereford (5) 81; Cambs. (5) 80; Essex (25) 80; N. Glos. (25) 80; W. Glos. (5) 80; E. Norfolk (35) 80; W. Sussex (10) 80; E. Suffolk (30-35) 75-80; Lincs. Holland (10) 75; Kent (15) 70; E. Sussex (15) 70; Wisbech and W. Norfolk (5) 70; Devon (20-25) 65; Middlesex and S. Bucks. (40) 65; Somerset (10) 60; Tamar Valley (60-65) 40-45.”

MARKETING SCHEMES.

AGRICULTURAL MARKETING (PIG INDUSTRY) ACT (N.I.) 1934.

PIG PRICES FOR JULY, 1939.

The following announcement has been made by the Pig Industry Council for Northern Ireland.

PRICES FOR DEAD PIGS.

The prices per dead cwt. for dead pigs sold by producers to curers in Northern Ireland in July, 1939, are as follows:—

Weight Class. (Dead Weight)	Grade 1.	Grade 2.	Grade 3.	U.L. or U.F.	Partly Black Pigs
c.1.0.21 to c.1.1.13	62/3	59/3	56/3	52/3	5/- below relevant Grade Price
c.1.1.14 to c.1.2. 3	66/3	63/3	60/3	56/3	
Weight Class. (Dead Weight)	Grade A.	Grade B.	Grade C.	U.L. or U.F.	
c.1.2. 4 to c.1.2.14	66/3	63/3	60/3	57/3	
c.1.2.15 to c.1.3.14	66/3	63/3	60/3	57/3	
c.1.3.15 to c.2.0. 0	63/3	60/3	57/3	54/3	
c.2.0. 1 to c.2.0.14	57/3	54/3	51/3	48/3	

Pig Carcases c.1.0.0 to c.1.0.20—59/3

(N.B. These prices represent a decrease of 7d. per cwt. on the month).

Authorised cuts:—

- (a) Broken ham (dry, shank and/or shell bone break)—5% of the gross value of the carcase.
- (b) Broken ham (wet break)—12½% of the gross value of the carcase.
- (c) Shoulder-stuck carcase—3/- per shoulder affected.

The gross value of a carcase is the product of the dead weight and the relevant grade or other price per cwt.

Where portion of a pig carcase is condemned on account of disease the existence of which could not reasonably have been known to the producer before despatch to the curer, the appropriate grade price (or fixed price if the carcase weighs not less than 1 cwt. 0 qr. 0 lb. and not more than 1 cwt. 0 qr. 20 lb.) shall apply. If the carcase is wholly condemned on account of disease

the existence of which could not reasonably have been known to the producer before despatch to the curer the relevant Grade 2 or Grade B price (or fixed price if the carcase weighs not less than 1 cwt. 0 qr. 0 lb. and not more than 1 cwt. 0 qr. 20 lb.) shall apply.

The foregoing prices do not apply in the case of (a) wholly black pigs, boars, rigs or stags, sucked sows, and pig carcasses weighing under c.1.0.0 or over c.2.0.14 and (b) pigs visibly diagnosable as diseased before despatch by the producer and subsequently condemned; emaciated or screw pigs; smelling pig carcasses with definite indications of putrefaction and pig carcasses badly abused or damaged before being handed over by the producer to the curer.

The attention of producers and curers is directed to the fact that the Council have determined that the premium payable on Wiltshire pigs sold alive by producers to Wiltshire curers (on direct contract) or to the Pigs Marketing Board (Northern Ireland) shall be 4/- per cwt. dead weight as and from 1st July, 1939.

PRICES FOR PIGS SOLD ALIVE ON DIRECT CONTRACT TO WILTSHIRE CURERS IN NORTHERN IRELAND, AND FOR PIGS SOLD ALIVE TO THE PIGS MARKETING BOARD (NORTHERN IRELAND) AND RESOLD TO WILTSHIRE CURERS IN NORTHERN IRELAND.

In the case of pigs sold alive to Wiltshire curers under direct contract or sold to the Pigs Marketing Board and resold to Wiltshire curers, the prices per dead cwt. during July, 1939, are as follows :—

Weight Class. (Dead Weight)	Grade 1.	Grade 2.	Grade 3.	U.L. or U.F.	Unsuitable
c.1.0.21 to c.1.1.13	70/3	67/3	64/3	60/3	57/3
c.1.1.14 to c.1.2. 3	70/3	67/3	64/3	60/3	57/3
c.1.2. 4 to c.1.2. 7	Grade A.	Grade B.	Grade C.	U.L. or U.F.	
	67/3	64/3	61/3	58/3	
c.1.0. 0 to c.1.0.20	Suitable 59/3		Unsuitable 57/3		
Over c.1.2.7	On the same basis as pigs sold dead.				

(N.B. These prices represent a decrease of 1s. 7d. per cwt. on the month).

PRICES FOR PIGS SOLD ALIVE TO THE PIGS MARKETING BOARD (NORTHERN IRELAND) AND NOT RESOLD TO WILTSHIRE CURERS IN NORTHERN IRELAND.

In the case of pigs sold alive to the Pigs Marketing Board during July, 1939, and not resold to Wiltshire curers, the prices per live cwt. according to grade are as follows :—

Live Weight.	Grade 1.	Grade 2.	Grade 3.		Unsuitable
c.1.1.14 to c.1.2.13	44/6	44/6	44/6		43/-
c.1.2.14 to c.2.0. 0	52/9	50/6	48/3	U.L. or U.F. 45/3	43/-
c.2.0. 1 to c.2.1.14	46/9	44/6	42/3		40/-
c.2.1.15 to c.2.2. 7	44/6	42/3	40/-		37/9
c.2.2. 8 to c.2.2.21	40/-	37/9	35/6		33/3

These prices do not apply to live pigs under c.1.1.14 or over c.2.2.21, live pigs intended for breeding, live boars, live suckled sows, rigs or stags, injured or diseased pigs, live in-pig gilts, or live pigs sold (on contract, registered with the Pig Industry Council) to curers in Northern Ireland. All other live pigs inside the weights c.1.2.0 to c.2.2.21 can be sold only to the Board.

AUTHORISED DEDUCTIONS.

Every pig (dead or alive) sold to a curer or to the Pigs Marketing Board is subject to a levy at present amounting to 4/2d.

In addition to this amount, a deduction of 4d. per pig may be made in the case of sales to curers of dead pigs and to the Board of live pigs resold to curers in Northern Ireland; a deduction of 7d. per pig may be made in the case of sales on Direct Contracts. These deductions are to cover insurance in the event of a carcase being condemned as unfit for human consumption.

GRADING STATISTICS.

(I) DEAD PIGS.

Table showing the percentages of pig carcasses for the Roll and Ham cure within the weight and grade classes indicated during April, 1939.

Under c.1.0.21		c.1.0.21 to c.1.1.13					c.1.1.14 to c.1.2.3					Totals
Suitable	Un-suitable	Grade 1	Grade 2	Grade 3	U.L. & U.F.	U.	Grade 1	Grade 2	Grade 3	U.L. & U.F.	U.	
1.26	.26	2.51	1.61	.38	.31	.01	4.61	5.72	2.49	1.10	.03	20.29

Grade A.				Grade B.				Grade C.				
1	2	3	4	1	2	3	4	1	2	3	4	
8.91	21.91	2.92	.40	6.47	20.34	3.88	.91	2.04	7.58	1.19	.19	76.74

Ungraded Carcasses.

Under Grade A measurements. U.L.	Over Grade C measurements U.F.	Wholly condemned U.1.	Wholly black, injured or damaged U.2.	Overweights, boars, sows, etc. X.	Partly Black Y.	
.04	1.90	.01	.44	.57	.01	2.97
					TOTAL	100%

These figures have been calculated from the purchase and grading statements which the curers furnish to the Ministry.

There was a considerable decline in the volume of curings in April as compared with a month earlier. Prices, as fixed by the Pig Industry Council for Northern Ireland, were the same in the two months, and the realised prices per cwt., less levies, etc., were little changed, the April figure standing at £3 1s. 8d. The average weight showed an increase of 1 lb. to c.1.2.19, and the average value of the carcase improved by 8d. to £5 2s. 11d.

(II) LIVE PIGS.

The following table gives the percentage results of an analysis of the purchase and grading statements furnished by Wiltshire Bacon Curers in respect of live pigs delivered on direct contract by producers during the month of May, 1939.

Weight Class.	Grade 1.	Grade 2.	Grade 3.	Unsuitable U.L. or U.F.	Total
Under c.1.0.0					.11
c.1.0.0 to c.1.0.20					.66
c.1.0.21 to c.1.2.3	45.26	31.97	8.22	3.46	88.91
	Grade A.	Grade B.	Grade C.		
c.1.2.4 to c.1.2.7	2.24	2.51	.87	.10	5.72
c.1.2.8 to c.1.3.14	1.37	2.12	.84	.20	4.53
Over c.1.3.14					.07
				Total	100%

The average net price per cwt. in respect of these deliveries works out at £3 6s. 8d. after making allowance for insurance and contribution to the Pigs Marketing Board. The average weight works out at c.1.1.21, the net average price per pig being £4 15s. 9½d.

COST OF STANDARD PIG RATION.

The average retail cash price per cwt. of the standard ration for the sixteen weeks' period ended 24th June, 1939, was 8/6 $\frac{3}{4}$ d. The average price for the similar period ended 20th May was 8/7 $\frac{3}{4}$ d. These figures have been calculated by the Ministry from returns collected from ten representative centres in Northern Ireland.

The following is the ration upon which the feeding cost is based :—

Maize Meal	...	...	...	30%
Barley Meal	...	...	...	30%
White Pollards	...	...	...	20%
White Bran	...	...	...	10%
Meat Meal (60% Protein)	...	...	...	10%

BACON INDUSTRY ACT (NORTHERN IRELAND) 1939.

SALES OF PIGS FOR CURING.

Forms of offer, contract and agreement for the supply of live or dead pigs by producers to curers during the period 1st September, 1939, to 31st December, 1939, are now available, together with copies of the contract conditions, and may be obtained free of charge from the offices of the Ministry of Agriculture, Stormont, Belfast, or from any Royal Ulster Constabulary Barrack.

Forms for direct contracts and agreements should be completed and sent to the Ministry not later than the 10th August, 1939, while forms of offer to enter into open contracts should be completed and sent to the Pigs Marketing Board, 36, Victoria Square, Belfast, not later than the 3rd August, 1939.

An explanatory leaflet regarding the contract provisions of the Act is in course of preparation, copies of which will at an early date be sent to pig producers, and will also be available free of charge on application to the above-mentioned sources.

MARKETING OF EGGS ACTS (N.I.) 1924—1937.

NORTHERN IRELAND EGG PRICES.

The following table shows the prices fixed by the Ministry and payable by licensed wholesale dealers for eggs purchased from producers during the weeks specified, as compared with the prices fixed for the corresponding weeks of 1938.

Week ended	1939				1938			
	Hen eggs per lb.*		Duck eggs per doz.*		Hen eggs per lb.		Duck eggs per doz.	
	s.	d.	s.	d.	s.	d.	s.	d.
June 3	0	6 $\frac{3}{4}$	0	8	0	7	0	10
" 10	0	6 $\frac{1}{2}$	0	7 $\frac{1}{2}$	0	7	0	10
" 17	0	8 $\frac{1}{4}$	0	8	0	8	0	9
" 24	0	9 $\frac{1}{4}$	0	9	0	8 $\frac{1}{4}$	0	9 $\frac{1}{2}$
July 1	0	8 $\frac{3}{4}$	0	9 $\frac{1}{2}$	0	9	0	9 $\frac{1}{2}$

*Where hen eggs are delivered by the producer to the packing store of a licensed Wholesale dealer of Class A an additional $\frac{1}{4}$ d. per lb. is payable; in the case of duck eggs an additional $\frac{1}{4}$ d. is payable for each complete dozen so delivered.

Payment on a quality basis came into operation during the week ended 5th March, 1938

The following were the standard deductions :—

Hen eggs : "Seconds" and soiled eggs, $\frac{1}{4}$ d. per egg.

Rejects : 1d. per egg during the weeks ended 3rd, 10th, and 17th June, afterwards $1\frac{1}{4}$ d. per egg.

Duck eggs : Rejects, $\frac{1}{4}$ d. per egg during the week ended 3rd June, for the week ended 10th June, $\frac{1}{4}$ d. per egg, afterwards $\frac{1}{4}$ d. per egg.

LONDON EGG PRICES.

Return of average prices of hen eggs at London on Monday each week, furnished by the London Egg Exchange, and published in the Weekly Dairy Produce Notes of the Imperial Economic Committee.

Hen Eggs per 120.

Description.	5/6/39	12/6/39	19/6/39	26/6/39
English, National Mark				
(Specials)	12/9	14/-	15/6	16/-
(Standards)	11/3	12/6	14/6	15/6
(Mediums)	10/-	10/6	12/-	13/-
(Pullets)	8/9	9/-	9/3	9/9
Northern Ireland				
(Extra Specials)	12/9	13/-	—	16/- 16/6
(Specials)	11/9 12/-	12/- 12/6	14/3 14/9	15/- 15/6
(Standards)	10/9 11/-	11/- 11/3	13/6 13/9	14/- 14/6
(Selected)	9/6 10/-	9/9 10/-	11/- 11/6	12/6

THE CATTLE INDUSTRY (EMERGENCY PROVISIONS) ACTS, 1934 AND 1935 AND THE LIVESTOCK INDUSTRY ACT, 1937.

SUMMARY OF PAYMENTS.

The following is a summary made under these Acts up to and including 8th July, 1939 :—

Live Weight.			No. of Animals.	Total Amount Paid.		
				£	s.	d.
England and Wales	...	...	5,299,073	13,224,217	15	8
Scotland	...	...	1,636,105	4,347,959	13	6
Northern Ireland	...	...	547,360	1,176,911	3	6
TOTAL (United Kingdom)	...	...	7,482,538	18,749,088	12	8
Dead Weight.						
England and Wales	...	...	160,605	404,235	7	7
Scotland	...	...	49,301	146,045	18	0
TOTAL (Great Britain)	...	...	209,906	550,281	5	7

NUMBERS CERTIFIED FOR SUBSIDY.

The numbers of fat cattle certified for payment of subsidy in May, 1939, have been as follows :—

	May, 1939.				Corresponding totals in	
	Home-bred		Imported		Total	
	Ordinary Grade	Quality Grade	Ordinary Grade	Quality Grade		
England	23,400	42,989	5,434	17,011	88,834	85,953
Wales	1,622	1,707	20	58	3,407	3,595
Scotland	2,682	18,494	1,321	14,400	36,897	33,249
Northern Ireland	5,178	1,923	324	236	7,661	7,422
United Kingdom	32,882	65,113	7,099	31,705	136,799	130,219
						139,589

As the great majority of fat stock markets are held on the early days of the week the rate of marketing of fat cattle cannot be judged accurately from the number of animals marketed in a calendar month. For comparative purposes appropriate weights are applied by the Livestock Commission to each day of the week, and the figures for each calendar month are adjusted accordingly, so as to allow as far as possible for the fact that a large number of markets are held on Mondays, and that the number of markets held decreases day by day as the week proceeds. The adjusted figures for May, 1939, 1938 and 1937 are 123,853, 121,624 and 137,042 respectively.

AVERAGE PRICES OF CERTIFIED CATTLE.

The average prices per live cwt. of certified cattle in May, 1939, have been :

	May, 1939						Corresponding averages in	
	Ordinary Grade		Quality Grade		Average		May, 1938	May, 1937
	s.	d.	s.	d.	s.	d.	s.	d.
England	39	1	42	5	41	5	43	1
Wales	40	1	44	6	42	5	44	2
England and Wales	39	1	42	5	41	5	43	2
Scotland	38	1	41	7	41	2	43	5
Northern Ireland	38	9	40	0	39	2	40	8
United Kingdom	39	0	42	1	41	3	43	1

WHEAT ACT, 1932.

ADVANCE PAYMENT TO REGISTERED GROWERS.

In accordance with Bye-law 31 of the Wheat Bye-laws, 1932, the Wheat Commission gave notice on 27th June that they had decided to make an advance payment to registered growers who made proper applications on valid wheat certificates delivered to the Commission after the 29th April, 1939, and on or before Friday, the 30th June, 1939. This advance payment was on account of the deficiency payments that would become due under the Wheat Act for the cereal year ending 31st July, 1939. It was to be made on or about Thursday, the 13th July, 1939, and was to be at the rate of 4s. 0d. per cwt., equal to 18s. 0d. per quarter of 504 lbs. This payment has placed growers who delivered wheat certificates since the 29th April, 1939, in the same position as those who had already received an advance payment during the current cereal year.

AGRICULTURAL NOTES.

SEASONAL FARM NOTES.

HAY.—It is most inadvisable to allow hay to remain in field “ricks” or cocks for a longer period than necessary owing to the fact that the hay at the outsides and bottoms of the cocks deteriorates rapidly in quality, especially when exposed to damp conditions. Every opportunity of favourable weather should be taken, therefore, to get the hay, when ready, carted to the stack-yard and stacked.

SAVING SEED.—The quality and germinating capacity of grass seed are very much reduced if the crop is exposed to excessive rain when in stooks. As soon as the top part of the sheaf is thoroughly dried the stooks should be built into huts. Even if the butts of the sheaves are slightly damp they will **dry out in the huts.**

The sheaves should be handled carefully when the huts are being made, otherwise there will be a loss of seed.

When the huts are being carted to the thresher it is advantageous to use a hay-cart instead of forking the sheaves from the huts to ordinary carts which causes much seed to be lost.

Special care should be given to the cleaning of the seed after threshing has taken place. Fine sieves should be used in the cleaning machine, and the seed should be run through as many times as are necessary to clean it well.

SEED POTATOES.—The inspection of crops of main-crop varieties intended for seed is now in progress, and any farmer proposing to market seed potatoes should apply immediately to the local Potato Inspector or the Ministry to have his crop inspected, if this has not already been done.

SEED OF EARLY VARIETIES.—The seed of early varieties should be exposed to the sun and “greened” after being dug. They should then be placed in sprouting boxes and examined frequently for diseased tubers.

SPRAYING POTATOES.—The second spraying of main crops should be carried out now, especially where the crops have made good growth since the first spraying. The preparation of Burgundy mixture for spraying potatoes was described in last month’s report. Full details with regard to spraying are given in Leaflet No. 50. If dull, misty weather prevails during the first weeks in August, farmers would be well advised to spray their crops a third time about the middle of August, especially where the crops are situated in low-lying, boggy ground.

DESTRUCTION OF POTATO TOPS.—Blight disease first attacks the potato tops and the "seeds" of the disease are washed down by the rain into the soil where they affect the tubers. If, therefore, the tops are removed or destroyed as soon as the disease is observed it is very likely that the tubers will escape infection. The early destruction of the tops may result in a larger proportion of small tubers, but where it is desired to produce seed this would be an advantage. Destruction of the tops by cutting and carting them off is rather laborious, and it will be found more convenient to destroy them by spraying with a chemical solution. Suitable solutions may be prepared as follows:—

- (1) By dissolving 8 lbs. of sodium chlorate in 40 gallons of water ;
- (2) by dissolving 12 lbs. of copper sulphate in 39 gallons of water and adding 1 gallon of commercial sulphuric acid ;
- (3) By adding 5 gallons of commercial sulphuric acid to 35 gallons of water.

Any of these solutions may be used at the rate of from 100 to 120 gallons per statute acre.

Great care should be exercised in the handling of sodium chlorate and sulphuric acid.

The acid should be added to the water—never the water to the acid.

Further particulars on this subject are given in Leaflet No. 87.

WEEDS.—Weeds in grassland should be pulled or cut before flowers are produced. By the continual cutting of weeds for a few seasons the food reserves in the roots will be depleted and the weeds thus destroyed. Farmers are reminded that it is an offence to permit noxious weeds such as dock, thistle, ragwort or benweed and ox-eye daisy to grow until seed is produced, and any farmer doing so is liable to be prosecuted and fined.

Farmers should realise that it is most unfair to their neighbours to permit weeds to produce seed which may be blown by the wind or carried by wild birds to the neighbouring farms.

By cutting weeds early, a farmer will be doing a good turn to both himself and his neighbours.

SEASONAL LIVESTOCK NOTES.

DAIRY COWS.—From the end of summer onwards the feeding value of pastures declines, and in order to maintain milk yields it will usually be necessary to commence feeding an allowance of concentrates. Cows giving two gallons

or more of milk per day should receive 3 lb. per head daily of a mixture of equal parts of crushed oats, maize meal and decorticated earthnut cake per gallon of milk in excess of two gallons.

Aftermath provides a useful supplement to pastures, and where the hay was cut early and stacked in good time the aftermath can be utilised for grazing. It is advisable to turn cattle on to the aftermath only for a short time each day for a few days, so that they may become accustomed to it gradually. This precaution is particularly necessary where the aftermath is rich in clover, or during wet weather. Overfeeding on aftermath may lead to trouble, both with the cows and with buttermaking.

CALVES.—After the milk allowance has been discontinued the quantity of meals fed should be increased. A suitable ration may be prepared by mixing

2 parts by weight	crushed oats
1 part	linseed cake,

or if crushed oats are not available

1 part by weight	maize meal
1	flaked maize
1	linseed cake

Either of these mixtures should be fed at the rate of from 2 to 3 lb. per head daily. The meal mixture should be fed dry, and not after being steeped or partly cooked, for if such is done poisoning may result. (See Leaflet No. 19 on how to feed linseed).

HUSK OR HOOSE.—If cattle are heard coughing during the late summer or autumn husk or hooose should be suspected. If not checked in time this disease may lead to heavy losses amongst young stock. If, however, precautions are taken in good time the disease may be prevented or its progress checked with little loss.

The animals should be housed at night, well fed on good hay or straw, with an allowance of a suitable meal mixture, and not allowed out in the morning till the dew is off the grass. If possible avoid low-lying, marshy grazing.

Full particulars of the disease and its prevention and treatment are given in Leaflet No. 80.

SHEEP.—Where early lambs are desired the ewes should be mated with a ram during August. The best lambing results are usually obtained when the ewes are in a forward thriving condition at mating time, and for that reason it is a good practice when weaning the previous crop of lambs to put the sheep on poor pasture to dry off their milk supply, and then when mating time approaches to change the ewes on to good pasture again, so that at service time the ewes are neither in poor condition nor over-fat but in improving condition.

When the ram is being turned out with the flock it is advisable to smear keel or other colouring matter on his breast, so that he will mark the ewes at time of service, making it possible to calculate when the lambs are due.

PREMIUM RAMS.—The County Committees of Agriculture offer premiums to enable farmers to purchase rams of superior quality. Farmers in the vicinity of a premium ram should take the opportunity of having their ewes served with a superior ram. Particulars of this scheme, and about the location of premium rams, can be had from the Secretary of the County Committee of Agriculture.

MAGGOTS IN SHEEP.—Attacks of a maggot fly are most likely to occur during periods of warm sultry weather, and a frequent inspection of the sheep should be made during such weather. Should sheep be seen to bite the wool on their hind quarters, or should damp, discoloured patches be seen, the sheep should be examined for maggots. If attacks occur the maggots should be rubbed out by hand, using carbolic dip to assist in dislodging them. If the skin is broken, the sores should be dressed with an ointment made up of powdered sulphur mixed with fresh lard or linseed oil.

PIGS.—Young pigs should be allowed out on fresh, clean pasture each day. This will enable them to make a satisfactory thrive and be the means of preventing certain deficiency troubles which occur when the pigs are continuously housed. It is particularly important that young pigs intended for breeding should be reared under conditions which tend to produce strong, sturdy animals with vigour and stamina, and a daily run on fresh, clean pasture, is one of the chief essentials in fulfilling this object. Young pigs intended for fattening should be well fed during the early stages, and especially after the weaning period, for if they are allowed to get a check at that stage, it is likely that the grading results will be adversely affected. It has been shown that full feeding during the early stages, and rationed feeding at the end of the fattening period, are most likely to give best grading results.

SEASONAL GARDEN AND ORCHARD NOTES.

SPRAYING APPLE TREES.—The final application of Bordeaux mixture should be given to apple trees about the last week in July. The mixture should consist of 1 lb. bluestone, 4½ lb. No. 1 hydrated lime, and 40 gallons of water.

STRAWBERRIES.—Strawberry runners for planting out in August should be selected now from healthy plants and layered on the soil between the rows of plants to ensure satisfactory rooting. As soon as the crop of strawberries has been gathered the plantation should be cleared of all weeds, straw, damaged foliage and surplus runners. All plants affected with virus diseases should be removed and destroyed, together with all their runners. The remaining plants and selected runners should then be sprayed with a nicotine spray prepared as follows:—

Dissolve 1 lb. soft soap in 10 gallons water and add 2 fluid ounces nicotine.

When the spraying has been finished the ground between the plants should be lightly hoed and some of the loose soil drawn up around the plants. In no circumstances should ground between the plants be dug with a spade, as this causes much damage to the roots.

BUSH FRUITS.—As soon as the crop of black currants has been gathered some of the oldest branches in each bush should be cut out so as to assist the development of the current year's shoots on which next year's crop will be borne. Raspberry and loganberry canes which have fruited this year should also be cut out as soon as the fruit has been gathered, and young canes tied in their places so as to preserve them from damage by wind.

VEGETABLES.—In late districts seeds of spring cabbage should be sown before the middle of July, and in early districts about the third week in July. The seed bed should be firm and made fine on the surface, and the seed sown in rows. The ground should not be manured.

A sowing of parsley should be made now for use next spring, and a sowing of garden turnip of the variety Orange Jelly to provide a supply of roots for use during the winter.

Early in August a sowing of early cauliflower should be made on moderately rich ground in a way similar to that advised for spring cabbage. The resulting plants should be wintered in a cold frame. About the second week in August a sowing of lettuce for spring use should be made. The young plants should be transplanted towards the end of September.

The variety of onion known as Sutton's Solidity is recommended for sowing in early August to mature the following summer.

As soon as the foliage of shallots and potato onions has begun to die down the bulbs should be lifted and spread on some hard surface to dry, or stored in potato sprouting boxes in the open. The bulbs should be protected from rain during harvesting.

Towards the end of July early white varieties of celery should be ready for the first moulding up. Side shoots should first be removed, and care must be taken that none of the soil gets into the centre of the plants. The plants should be sprayed regularly with half-strength Burgundy mixture to protect them from celery blight. Half-strength Burgundy mixture is 1 lb. bluestone, 1½ lb. washing soda, and 10 gallons water.

FLOWERING PLANTS.—Many flowering shrubs can be propagated now by taking cuttings of half ripened shoots and inserting them in sandy soil in a shaded place. Many herbaceous plants such as geraniums, violas, etc., can also be propagated now by means of cuttings of the young shoots. Side shoots of carnations should be layered.

HEDGES.—Hedges of whitethorn and privet should now be trimmed. The sides of the hedges should be sloped to a point at the top. Grass, ivy, briars, etc., should be removed so as to encourage the hedges to develop strongly at the bottom.

SEASONAL POULTRY-KEEPING NOTES.

PULLETS.—From now onward, the early hatched pullets will be commencing to come into lay. While they should not, on any account, be encouraged to come into production too soon, it is also important to see that they do not suffer any check in growth and development through an attempt to postpone the commencement of laying by stinting the amount of food given.

The handling of the birds at the time of transfer to their permanent quarters will afford a good opportunity for culling out all pullets which are not likely to be profitable layers. The culling of pullets should be done thoroughly at this stage, and where there is the slightest doubt about the ability of a bird to stand up to the strain of egg production, she should not be included in the flock, but culled out for sale for table purposes.

If pullets appear to be doing badly and are slow in thriving, attention should be paid to the management and housing, as failure to make satisfactory thrive is frequently due to overcrowding and to insufficient ventilation. In such cases additional house space should be provided and, if possible, the birds should be moved to fresh ground.

CARE OF EGGS.—Producers are reminded of the importance of marketing only fresh, clean, infertile eggs which are likely to reach the consumer in good condition. One of the principal causes of eggs of poor quality at this time of year arises from the partial incubation of the eggs by broody hens sitting on the nests, and, accordingly, the broodies should be removed from the nest as soon as they are noticed, placed in a slatted floor coop and provided with an adequate supply of food and water in order to bring them back into production with the minimum of delay.

The eggs should be collected from the nests regularly and stored in a dry, cool, well-ventilated room, and should be marketed at the earliest opportunity. It should be remembered that by keeping down the proportion of "seconds" the producer will not only obtain full price for the eggs sold, but assist in maintaining the standard price at the highest possible level.

SELECTION OF BREEDING STOCK.—Birds which are one year old or over should now be examined with a view to selecting those which are the most suitable for next season's breeding pens. Only the best birds should be retained for breeding, and special attention should be paid to the selection of sturdy, large-bodied birds which show evidence of stamina and of ability to live and lay. If a bird shows any signs of weakness in constitution she should be rejected for breeding purposes no matter how good her egg record may be.

The birds selected for breeding should be encouraged to go into a moult and to cease laying in order that they may be ready to produce eggs for hatching early in the breeding season. To do this a change of ground, housing and food is necessary, and such change should be made now. The upsetting effect of the change is sometimes sufficient to bring about the desired moulting, but more drastic measures are usually necessary. The hens should be put out in a field in a portable house, and fed on grain only, or grain with a very limited quantity of a mash in which no protein supplement has been included. A suitable grain feed is oats or a mixture of oats and whole wheat. The birds should be fed twice daily, and the quantity given so regulated that the birds will be hungry for the next feed. An ample supply of water should be provided.

When the moult has become general the quantity of food should be gradually increased, and the character of the ration gradually altered, until the hens are again receiving normal laying rations.

For further details with regard to the care and management of breeding stock, see Leaflet No. 83.

COCKERELS FOR BREEDING.—Cockerels intended for breeding purposes should be kept out on free range in order that they may develop slowly and naturally into sturdy, vigorous stock birds.

TABLE DUCKLINGS.—Ducklings intended for table use should be well fed so that they may be ready for marketing when from 8 to 10 weeks old. After that age the change from down to adult feathering begins, and if the ducklings are not sold prior to this change it will be necessary to retain them for a further period of about 6 weeks. In order to obtain a firm flesh of good quality, the birds should be fed during the last fortnight of fattening with a ration of barley meal and Sussex ground oats, wet with separated milk or buttermilk.

TURKEYS.—Turkeys should be fed generously from now onwards, but the number of feeds may be reduced to three per day. The morning feed should be given before the birds are allowed out, and a substantial feed given in the evening, so that the birds go to roost with full crops.

Particulars of suitable mashes for turkeys are given in Leaflet No. 37.

ANNOUNCEMENTS AND REMINDERS.

GENERAL.

INSPECTION OF POTATO CROPS.—The inspection of potato crops for certification is now in progress, and farmers who desire to have their crops inspected should make immediate application to the Ministry or to the local Potato Inspector, if they have not already done so.

DESTRUCTION OF WEEDS.—Land owners should arrange to have all noxious weeds destroyed in good time. Inspection work in this connection is now being carried out by members of the Royal Ulster Constabulary, and farmers are reminded that failure to comply with the provisions of the Weeds Act may lead to a prosecution.

SHEEP DIPPING.—Sheep owners are again reminded that the summer period for the compulsory double dipping of sheep commenced on 15th June and terminates on 15th August.

GREENMOUNT AGRICULTURAL AND HORTICULTURAL COLLEGE.—Applications for the Scholarships to this College, which are offered by the County Committee of Agriculture, should be made to the Secretary, County Committee of Agriculture, before the 30th July.

APPLICATIONS FOR BLOOD TESTING.—Applications for the blood testing of poultry for Bacillary White Diarrhoea should be made to the Poultry Instructor for the district, or to the Secretary, County Committee of Agriculture, at the earliest possible date, and in all cases before 31st July. A higher fee will be payable in respect of applications received after that date.

STORMONT EGG-LAYING TEST.—The next Egg-Laying Test at Stormont begins on the 1st October, 1939, and copies of the rules may be obtained from the Ministry or from the Poultry Instructors. The Test offers breeders a splendid opportunity of ascertaining the laying capacity of their birds, and in addition, it should be noted that birds which qualify for copper rings are eligible for entry at the Official Breeding station of Northern Ireland.

ACCREDITED POULTRY FARMS SCHEME.—This Scheme, which was so successful last season, is being continued, and a list of poultry farms registered under the Scheme will be published next November. Poultry keepers who wish their farms to be considered for inclusion in the list should make application to the Ministry or the local Poultry Instructor on or before 31st July. An essential condition for registration is that all the birds on the farm must have passed the test for Bacillary White Diarrhoea disease, but in the case of farms provisionally accepted for registration, the testing will be done by the Ministry, free of charge. Forms on which application for registration

should be made, and forms for application to have blood testing done, can be had from the Ministry or from the Poultry Instructor. It should be noted that those who had their farms registered last season must apply for registration for the coming season.

WINTER AGRICULTURAL CLASSES.—The centres selected by County Committees of Agriculture for the classes which will begin early in November next are as follows:—

Antrim—Dunloy, Cushendall, Randalstown and Carnalbana.

Armagh—Hamiltonsbawn and Salters Grange (Armagh).

Down—Ballee (Downpatrick) and Banbridge.

Fermanagh—Thompson's Bridge and Tempo.

Londonderry—Cross (Londonderry) and Eglinton.

Tyrone—Sixmilecross, Augher, Ardarron (Castlederg), Altishane (Donemanagh), Kildress (Cookstown), and Drumond (Moy).

Full particulars regarding the buildings in which the classes will be held, opening dates and class hours, can be obtained from the Secretary of the County Committee of Agriculture, or from the Agricultural Instructor.

Instruction in all branches of farming is given at these classes, free of charge. Young men residing in the districts in which the classes are held are strongly advised to make an effort to attend the classes. As only a limited number of men can be admitted to each class those desiring to take advantage of the instruction should make application at once to the Secretary or Agricultural Organiser of the County Committee of Agriculture, or to the Agricultural Instructor.

SCHOLARSHIPS IN AGRICULTURAL SCIENCE.

The Ministry offers a limited number of scholarships in Agricultural Science for competition this year among young men in Northern Ireland. Each scholarship is of the value of £95 per annum, and is tenable for four years in the Faculty of Agriculture of the Queen's University of Belfast. Successful candidates are afforded the opportunity of securing advanced training in Agricultural Science, and at the end of the scholarship course the student will be in a position to qualify for the degree of B.Agr. The value of the scholarships enables the holders to pay their fees and retain a balance for upkeep purposes.

Candidates must be not less than 17 or more than 25 years of age on 15th November, 1939, but a reasonable extension of the upper age limit may be granted where the Ministry is satisfied that a candidate has had extended experience of practical agriculture. In addition, candidates must have passed

the Matriculation Examination or its accepted equivalent. Eligible applicants will be submitted to an examination to test their knowledge of practical agriculture and their knowledge of elementary science as applied to agriculture.

For more detailed particulars regarding these scholarships those interested should communicate with the Secretary, Ministry of Agriculture, Stormont, Belfast. It should be noted that the latest date for the receipt of applications for these scholarships in the Ministry is 15th August, 1939.

SCHOLARSHIPS IN HORTICULTURAL SCIENCE.

Young men in Northern Ireland who wish to specialise in Horticulture in order to be eligible for posts on the horticultural advisory staffs of the County Committees of Agriculture, or for posts of a similar nature in Northern Ireland, should note that the Ministry of Agriculture is offering two valuable Scholarships for competition this year. Each scholarship is of the value of £640, and is tenable for four years, the first three of which will be spent at the University of Reading where the student will be able to qualify for the degree of Bachelor of Science (Horticulture). The fourth year will be passed at a Horticultural establishment to be selected by the Ministry.

Candidates must be not less than 17 or more than 25 years of age on 1st October, 1939, but a reasonable extension of the upper age limit may be granted where the Ministry is satisfied that a candidate has had extended experience of practical horticulture. Candidates must have passed an examination, such as the Matriculation Examination of the Queen's University, Belfast, recognised by the University of Reading as complying with its regulations in regard to matriculation, and will be submitted to an examination by the Ministry to test their knowledge of horticulture.

More detailed particulars regarding these scholarships can be obtained from the Secretary, Ministry of Agriculture, Stormont, Belfast, and it should be noted that the latest date for the receipt of applications in the Ministry is 19th August, 1939.

SCHOLARSHIPS IN CREAMERY MANAGEMENT, 1939

The following candidates have been declared successful in the Competitive Examination for Scholarships in Creamery Management which was held on the 9th May last :—

Cyril Wm. Brown, "Corrard", Derryharney P.O., Lisbellaw,
County Fermanagh.

Wm. Hall Stevenson, Ballylaw, Artigarvan, Strabane, County Tyrone.

COMPULSORY LICENSING OF BULLS.

Bulls born in July, August, September, October, November and December, 1938, must be licensed, under the terms of the Live-Stock Breeding Act (Northern Ireland), 1922, by the 30th September, 1939, and owners are reminded that applications for such licences must be made on the prescribed forms and posted to reach the Ministry's offices not later than the 31st July, 1939. Owners should, therefore, apply immediately to the Ministry for the necessary application forms and a list of centres at which bulls will be inspected for licences. Such application forms and lists of inspection centres may also be procured at any police barracks.

Every person who applies for a licence on the prescribed form not later than the 31st July, 1939, will be notified by the Ministry regarding the actual place, date and hour appointed for the inspection of his bull.

SCHOOLS NEWS.

ULSTER DAIRY SCHOOL, COOKSTOWN.

Practical and theoretical instruction is provided in Dairying and Poultry-keeping in all their branches, as well as in Rural Housewifery which includes cookery, laundry and sewing. The School is the most up-to-date of its kind in Northern Ireland and, besides training girls who will return to their own homes and put their knowledge into practice there, it also enables suitable pupils to qualify for free training as dairymaids. In addition girls trained at this School may, if they attain a sufficiently high standard at the term examinations, be recommended for more advanced training with a view to qualifying as Instructors in Poultry-keeping and Butter-making. Under the County Committees of Agriculture, these officers command salaries ranging from £170 per annum to £300 per annum.

The ordinary School course lasts for two terms, and the School fees, by reason of the fact that entry is by partial Scholarship, are only four guineas per term of 15 weeks, inclusive of board and residence. The free illustrated Prospectus of the School may be obtained from the Secretary, Ministry of Agriculture, Stormont, Belfast, and from the Lady Superintendent, Ulster Dairy School, Cookstown. Girls who wish to undergo a course of training should submit their applications to the Secretary, Ministry of Agriculture, Stormont, Belfast.

The next session at this School will commence on the 12th of September and, therefore, early application is essential.

NORTH WEST SCHOOL, STRABANE.

The second term of the year 1939 at this School ended on the 16th June, and there were 24 pupils in the class, all of whom held Scholarships awarded

by the various County Committees of Agriculture. The number of Scholarship-holders from each County was as follows:—

County Antrim	.....	.....	.....	3
County Armagh	.....	.....	.....	4
County Down	.....	.....	.....	7
County Fermanagh	.....	.....	.....	3
County Londonderry	.....	.....	.....	1
County Tyrone	.....	.....	.....	6

The third term of the year began on the 18th July, and the names and addresses of the holders of Scholarships from the various County Committees will be given in the next issue of this Report.

Each County Committee of Agriculture is offering a number of Scholarships to cover the cost of tuition, board and residence at the School, for the term which will commence on 10th October, 1939. Candidates who wish to be considered for the award of these Scholarships should submit their applications as soon as possible to the Secretary or Agricultural Organiser of the County Committee of Agriculture for the County in which they reside. Copies of the free illustrated School Prospectus, containing forms of application for admission, can be obtained from the Secretary (or Agricultural Organiser) of the County Committee of Agriculture, the local Instructor in Poultry-keeping, the Lady Superintendent, North West School, Strabane, or the Secretary, Ministry of Agriculture, Stormont, Belfast.

SEVENTEENTH EGG LAYING TEST AT STORMONT.

The tenth period of four weeks ended on the 7th July, 1939. There was a further decrease in egg production, which was due to broodiness. The total number of eggs laid by the competing birds was 10,977, which gives an average of 14.52 eggs per bird as compared with 16.05 for the previous period, and 14.2 for the tenth period of the previous test. Of the 10,977 eggs laid 9,982 (90.93 per cent.) were scoring eggs, i.e., 2 oz. or over in weight.

The highest sectional average egg production during the tenth period is to the credit of the Rhode Island Reds in Section 5, viz., 16.0 eggs per bird, the Rhode Island Reds in Section 6 being next with an average of 14.6 eggs per bird.

The average production during the 40 weeks the test has been in progress, based on the original flock of 756 birds, was 151.88 eggs per bird, as compared with 149.4 for the corresponding 40 weeks of the previous test. The average production of 685 birds alive at the end of the tenth period was 162.36 eggs per bird.

MORTALITY.—Seventy-one of the 756 birds accepted for the test have died. This represents a rate of 9.39 per cent., which is 2.89 per cent. lower than the rate for the corresponding 40 weeks of the previous test. Thirty pens have each lost one bird, ten pens have each lost two birds, and seven pens have lost three birds.

The number of deaths and percentage mortality in the different sections are as follows:—

Section	Breed	No. of Birds	No. of Deaths	Percentage Death Rate
1	White Wyandottes (Open)	120	5	4.17
2	" " (Stationholders)	60	7	11.66
3	White Leghorns (Open)	60	13	21.66
4	" " (Stationholders)	66	9	13.63
5	Rhode Island Reds (Open)	174	10	5.75
6	" " " (Stationholders)	66	9	13.63
7	Any other breed	150	11	7.33
8	Clubs (Any Breed)	60	7	11.66

The mortality amongst the different breeds is as follows:—

Breed	No. of Birds	No. of Deaths	Percentage Death Rate
Rhode Island Red	282	25	8.86
White Wyandotte	198	13	6.56
White Leghorn	126	22	17.46
Brown Leghorn	12	1	8.33
Black Leghorn	6	—	—
Light Sussex	66	1	1.51
Buff Rock	42	7	16.66
Maran	6	2	33.33
Silver Grey Dorking	6	—	—
Welsummer	6	—	—
Ancona	6	—	—

The encouraging feature about this analysis is the comparatively low death rate amongst the Light Sussex, the White Wyandottes, and the Rhode Island Reds. Two casualties have occurred in each of two pens of Buff Rocks, and three casualties in another pen of this breed. The numbers of Brown Leghorns and Marans are too small to justify comment.

The following are particulars of the leading pens in each Section at the close of the tenth period :—

SECTION 1. WHITE WYANDOTTES (Open). 20 Pens.

Position	No. of Pen	Name and Address of Owner.	Number of eggs laid				Test Score
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	11	Mr. J. Lenaghan, Tyconnett, Ballynahinch, Co. Down	698	389	40	—	1,087
2	8	Mrs. D. C. Gamble, The Retreat, Coalisland, Co. Tyrone	506	547	74	—	1,053
3	1	Mrs. K. Bamforth, Melmount Road, Strabane, Co. Tyrone	793	228	15	—	1,021
4	12	Mr. J. Lenaghan, Tyconnett, Ballynahinch, Co. Down	610	406	25	—	1,016
5	19	Dr. J. Stuart, Killyflue, Ballymena, Co. Antrim	316	683	135	1	999

SECTION 2. WHITE WYANDOTTES (Stationholders). 10 Pens.

1	30	Mrs. M. J. Veitch, Knockninny, Thompson's Bridge, Enniskillen Co. Fermanagh.	635	328	27	—	963
2	25	Miss A. Brown, Ballyhill, Crumlin, Co. Antrim	309	620	56	—	929
3	23	Mrs. J. Armstrong, Keeranbeg House, Donagh, Lisnaskea, Co. Fermanagh	493	402	40	3	895

SECTION 3. WHITE LEGHORNS (Open). 10 Pens.

1	41	Mr. J. Waugh, Aldfreck, Ballycarry, Belfast	619	501	60	—	1,120
2	39	Mr. J. Telford, Drumarkin, Rathfriland Co. Down.	697	328	43	1	1,025
3	34	Mrs. H. M. Fletcher, Ashgrove, Lisadian, Hillsborough, Co. Down	364	501	60	—	865

SECTION 4. WHITE LEGHORNS (Stationholders). 11 Pens.

1	52	Mrs. J. Short, Tullyvalley, Seskinore, Co. Down	505	505	129	2	1,010
2	47	Miss I. Gilmer, Rashee, Ballyclare, Co. Antrim	260	694	121	1	954
3	48	Mr. P. King, Leitrim P.O., Banbridge, Co. Down.	446	429	86	—	875

SECTION 5. RHODE ISLAND REDS (Open). 29 Pens.

Position	No. of Pen	Name and Address of Owner.	Number of eggs laid.				Test Score
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	66	The Marquis of Hamilton, Baronscourt, Omagh	495	603	49	1	1,098
2	67	Miss J. A. Irwin, Mount Irwin Tynan	279	762	122	1	1,041
3	61	Mrs. E. R. Dunwoody, Benmore, Islandmagee	247	729	109	2	976
4	69	Mr. J. M'Cormick, Crosshill, Crumlin	390	535	64	—	925
5	74	Mr. R. J. O'Hanlon, Mullahead, Tanderagee	500	424	289	3	924

SECTION 6. RHODE ISLAND REDS (Stationholders). 11 Pens.

1	89	Miss S. M'Kee, Ardmillan House, Killinchy, Co. Down	370	713	122	1	1,083
2	83	Mrs. H. H. Dickson, Lower Coagh, Co. Tyrone	446	634	79	—	1,080
3	86	Miss E. M'Clelland, Ballynashee, Ballyclare, Co. Antrim	291	736	39	—	1,027

SECTION 7. ANY OTHER PURE BREED. 25 Pens.

1	113	Mr. R. Holmes, Killykegan, Coleraine, Co. Londonderry (Black Leghorn)	358	546	159	4	904
2	107	Mr. R. Holmes, Killykegan, Coleraine, Co. Londonderry (Buff Rock)	374	528	229	3	902
3	106	Mr. R. Holmes, Killykegan, Coleraine, Co. Londonderry (Buff Rock)	262	637	225	4	899
4	93	Mrs. M. Benson, Killymoon, Cookstown, Co. Tyrone (Light Sussex)	581	279	132	—	860
5	112	Mrs. K. Bamforth, Melmount Road, Strabane, Co. Tyrone (Brown Leghorn)	147	650	194	1	797

SECTION 8. CLUB ENTRIES. 10 Pens. ...

Position	No. of Pen	Name and Address of Club.	Number of eggs laid.				Test Score
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	126	Portadown Poultry Club, Co. Armagh (Rhode Island Red)	140	900	138	1	1,040
2	120	Ballywalter Young Farmers' Club, Co. Down (Rhode Island Red)	309	611	74	—	920
3	124	Dungannon Poultry Club, Co. Tyrone (White Wyandotte)	318	553	106	—	871

"Test Score" means the total of the super-grade and first-grade eggs.

Pen No. 41 of White Leghorns in Section 3, entered by Mr. J. Waugh, is now in the leading position in the entire test. Second place has been taken by the Marquis of Hamilton's Pen No. 66 of Rhode Island Reds in Section 3, while Mr. J. Lenaghan's Pen No. 11 of White Wyandottes in Section 1 is third. Fourth place is occupied by Miss McKee's Pen No. 89 in the Stationholders' Section for Rhode Island Reds.

AGRICULTURAL INDEX NUMBERS.

MONTHLY INDEX NUMBERS OF PRICES OF INDIVIDUAL COMMODITIES.

(Corrected for Seasonal Variation).

(Base 1927-29 = 100).

Commodity	1939				1938	1937
	June	May	April	March	June	June
Cattle : Fat ...	82†	81	81	79	84	89
Store ...	87	86	88	89	93	92
Cows : Fat ...	65	73	71	63	68	74
Sheep : Fat ...	50	55	51	62	60	70
Bacon Pigs ...	80†	75†	74	74	87	87
Hens and Chickens	74	74	73	70	76	71
Ducks ...	88	99	87	95	98	90
Eggs ...	112	98	105	92	108	93
Milk :						
For Manufacture	*	85	89	85	90	81
Whole ...	121	115	118	110	125	119
All ...	*	95	103	99	99	91
Farmers' Butter ...	79	80	75	76	88	71
Wool ...	66	—	—	—	44	113
Potatoes ...	67	91	108	95	145	161
Oats ...	61	63	66	69	86	98
Hay ...	83	80	79	77	76	91
Oat Straw ...	94	85	88	84	90	106

Revised Index Numbers taking Account of Payments under the Cattle Subsidy, and Government Payments for Milk.

Cattle : Fat ...	94†	93	94	91	95	99
Milk :						
For Manufacture	*	100	99	109	113	102
All ...	*	105	108	109	116	106

* Not yet available.

† Provisional.

MONTHLY INDEX NUMBERS OF PRICES OF INDIVIDUAL COMMODITIES

(Uncorrected for Seasonal Variation).

(Base 1927-29 = 100).

Commodity	1939				1938	1937
	June	May	April	March	June	June
Cattle : Fat ...	88†	87	85	80	90	95
Store ...	91	88	89	89	98	97
Cows : Fat ...	67	76	74	66	71	76
Sheep : Fat ...	53	63	61	69	63	74
Bacon Pigs ...	80†	81†	81	81	87	87
Hens and Chickens	73	77	78	76	75	70
Ducks ...	87	98	85	95	96	88
Eggs ...	80	61	63	57	75	64
Milk :						
For Manufacture	*	75	88	95	75	68
Whole ...	104	104	121	121	104	96
All ...	*	84	104	109	83	75
Farmers' Butter ...	75	80	79	80	83	67
Wool ...	64	—	—	—	44	112
Potatoes ...	72	96	104	86	144	159
Oats ...	66	67	68	70	93	106
Hay ...	88	81	81	77	81	96
Oat Straw ...	88	83	89	86	84	98

Revised Index Numbers taking Account of Payments under the Cattle
Subsidy, and Government Payments for Milk.

Cattle : Fat ...	100†	99	98	93	102	106
Milk :						
For Manufacture	*	88	98	121	94	85
All ...	*	93	109	121	97	88

* Not yet available. † Provisional.

PRICES USED IN THE CALCULATION OF THE INDEX NUMBERS.

Commodity	1927-29	1939				1938	1937
		June	May	April	March	June	June
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Cattle :							
Fat, per live cwt. ...	45 2	39 7†	39 2	38 5	36 4	40 6	43 1
Store, per head	223 7	203 0	196 10	198 5	198 2	218 4	216 0
Cows :							
Fat, per head	336 10	225 10	254 7	248 8	223 11	238 2	257 0
Sheep :							
Fat, per head	53 6	28 3	33 7	32 8	36 10	33 11	39 8
Bacon Pigs, per dead cwt. ...	78 8	62 11†	63 5†	63 8	63 6	68 4	68 3
Hens & Chickens per head ...	3 0½	2 2½	2 4½	2 4½	2 3½	2 3½	2 1½
Ducks, per head	2 6½	2 2½	2 5½	2 1½	2 5	2 5½	2 3
Eggs, per 120 ...	13 6	10 9	8 2	8 5	7 7	10 1	8 7
Milk :							
For Manufacture, per gal.	0 6½	*	0 4½	0 5½	0 6	0 4½	0 4½
Whole, per gal.	1 0	1 0½	1 0½	1 2½	1 2½	1 0½	0 11½
Farmers' Butter, per lb. ...	1 5½	1 1	1 2	1 1½	1 2	1 2½	0 11½
Wool, per lb. ...	0 11	0 7	—	—	—	0 4½	1 0½
Potatoes, per cwt.	3 5	2 5	3 3	3 6	2 11	4 11	5 5
Oats, per cwt.	8 1	5 4	5 5	5 6	5 8	7 6	8 7
Hay, per ton ...	73 8	64 10	59 7	59 6	56 6	59 6	70 9
Oat Straw, per ton ...	47 6	41 11	39 8	42 5	41 0	39 10	46 8

* Not yet available. † Provisional.

MINISTRY OF LABOUR RETAIL PRICES AND INDICES.

The Ministry of Labour general index of retail prices of food in Great Britain and Northern Ireland at June 1st was 34 per cent. above the level of July, 1914, the same as the previous month, but 4 points lower than at June 1st, 1938. The principal changes recorded during the month related to prices of butter and cheese, which showed a reduction, and those of sugar which were higher.

The following table shows the average retail prices of certain foods in large towns and villages on June 1st, 1939, May 1st, 1939, and June 1st, 1938, with the corresponding increases over July, 1914.

Article	June 1st, 1939	May 1st, 1939	June 1st, 1938	Increase over July, 1914.		
				June 1st, 1939	May 1st, 1939	June 1st, 1938
	Per lb. s. d.	Per lb. s. d.	Per lb. s. d.	Per cent.	Per cent.	Per cent.
Beef, British—						
Ribs	1 2½	1 2½	1 2½	43	42	46
Thin Flank	0 7½	0 7½	0 7½	15	15	18
Beef, Chilled or Frozen—						
Ribs	0 9½	0 9½	0 9½	30	31	32
Thin Flank	0 4½	0 4½	0 5	Nil	1	3
Mutton, British—						
Legs	1 3½	1 3½	1 3½	49	49	52
Breast	0 7½	0 7½	0 8	17	16	22
Mutton, Frozen—						
Legs	0 10½	0 10½	0 10½	49	50	51
Breast	0 4	0 4	0 4½	— 3*	Nil	1
Bacon (Streaky)	1 2½	1 3	1 3½	31	33	37
Butter—Fresh	1 3½	1 4½	1 5	9	13	17
Salt	1 2½	1 3½	1 3½	2	7	12
Cheese	0 10	0 10½	0 10½	15	21	24
Milk	Per qt. 0 6½	Per qt. 0 6½	Per qt. 0 6	80	85	73
Eggs (Fresh)	Each 0 1½	Each 0 1½	Each 0 1½	8	9	15
Bread	Per 4 lb. 0 8½	Per 4 lb. 0 8½	Per 4 lb. 0 9½	46	46	58
Flour	Per 7 lb. 1 1½	Per 7 lb. 1 1½	Per 7 lb. 1 3½	30	30	45
Potatoes	0 6½	0 6½	0 7½	35	35	53

* Decrease.

The cost of maintaining unchanged the pre-war standard of living of working-class families at June 1st was approximately 53 per cent. over the level of July, 1914, as against 53 per cent. at May 1st, and 55 per cent. a year ago.

PRICES OF FEEDING STUFFS AT SPECIFIED CENTRES.

The following table shows the retail cash prices per cwt. of Feeding Stuffs at 1st July, 1939, in ten representative centres in Northern Ireland.

	Antrim		Armagh		Ballymena		Belfast		Coleraine		Dun- gaunon		Ennis- killen		Newry		Omagh		Stra- bane		
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	
Protein Foods :																					
Linseed (whole) ...	—	—	15	0	16	0	16	0	18	0	—	—	16	0	—	—	17	0	—	—	
Linseed Cake, home-made ...	—	—	12	6	10	6	11	0	12	6	13	0	11	3	—	—	12	0	—	—	
Linseed Cake, foreign ...	11	0	12	0	10	0	10	6	12	0	11	0	—	—	—	—	11	6	10	0	
Linseed Cake Meal ...	11	0	12	6	10	0	11	0	11	6	13	0	11	6	11	3	11	6	11	0	
Cotton Cake, decorticated ...	—	—	—	—	9	0	10	6	9	6	9	6	10	6	—	—	9	6	9	6	
Earthnut Cake, decorticated ...	8	9	—	—	9	0	8	6	8	9	9	0	9	0	—	—	9	0	—	—	
Soya Bean Meal (extracted) ...	10	0	10	6	10	0	11	0	11	0	10	0	—	—	—	—	10	6	11	0	
Fish Meal (60% protein) ...	17	0	17	0	16	6	16	6	16	6	17	0	17	0	16	6	17	0	16	0	
Meat Meal (60% protein) ...	16	6	15	0	13	3	13	3	16	6	15	6	—	—	—	—	15	0	16	3	
Meat and Bone Meal (40% protein) ...	—	—	10	0	9	6	9	0	9	9	9	0	9	0	9	0	—	—	10	0	
Medium Protein Foods :																					
Palm Kernel Cake ...	9	0	—	—	8	6	7	6	—	—	—	—	—	—	—	—	—	—	—	—	
Palm Kernel Meal ...	9	0	—	—	8	6	7	6	—	—	—	—	—	—	—	—	—	—	—	—	
Starchy Foods :																					
Maize (whole) ...	6	3	6	7½	6	9	5	9	6	9	6	9	6	9	6	6	—	6	10½	6	6
Maize Meal ...	6	9	6	10½	6	9	6	6	6	9	6	10½	6	10½	6	9	6	10½	6	9	
Maize Flaked ...	7	1½	7	6	7	3	7	0	7	6	7	6	7	6	7	6	7	6	7	9	
Wheat (whole) ...	6	6	6	6	6	6	6	0	6	3	6	3	7	0	6	3	7	0	6	0	
Bran, Red ...	7	3	7	6	6	6	7	6	7	6	7	0	7	6	7	0	7	9	6	9	
Bran, White ...	8	6	8	9	8	0	8	6	8	6	8	6	9	0	7	9	9	3	9	9	
Pollard, Brown ...	7	3	7	6	7	0	7	6	6	9	7	0	8	0	7	0	7	6	7	0	
Pollard, White ...	—	—	8	6	7	6	8	3	7	3	8	3	8	6	8	0	8	9	8	6	
Barley Meal ...	7	6	7	6	7	0	7	6	7	6	7	4½	7	9	7	3	8	0	7	6	
Tapioca Root Flour ...	—	—	—	—	6	6	6	6	—	—	—	—	7	6	—	—	—	—	6	9	
Oats (whole) ...	7	6	7	0	6	0	7	0	6	3	7	6	7	4	6	3	5	3	5	0	
Crushed Oats ...	8	0	7	6	6	6	7	6	6	9	8	0	8	0	6	9	7	0	6	0	

Non-Concentrates :—The average prices at representative markets at the beginning of July, 1939, were as follows :—Potatoes (Main Crop), 2½d. per cwt. ; Upland Hay, 69/6 per ton ; Meadow Hay, 57/- per ton ; Oat Straw, 37/- per ton.

AVERAGE PRICES OF FEEDING STUFFS.

The following table shows the average retail cash prices per cwt. of feeding stuffs at 1st July, 1939, with comparative prices as at the first of the previous month; the costs per unit of protein equivalent and of starch equivalent are also given in respect of each month.

	Protein Equiv- alent	Starch Equiv- alent	Average price per cwt. at		Cost per unit of protein equivalent		Cost per unit of starch equivalent	
			1st July, 1939	1st June, 1939	July,	June,	July,	June,
Protein Foods			s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Linseed	18.75	119.2	16 4	17 2	17 5	18 4	2 9	2 11
Crushed Linseed	18.75	119.2	17 7	18 2	18 9	19 4	3 0	3 1
Linseed cake (home made)	24.6	74.0	11 10	11 9	9 8	9 7	3 2	3 2
Linseed cake (foreign)	27.05	74.5	10 11	10 11	8 1	8 1	2 11	2 11
Linseed cake meal	24.6	74.0	11 5	11 6	9 3	9 4	3 1	3 1
Decorticated Cotton cake	34.65	68.4	9 9	10 2	5 7	5 10	2 10	3 0
Decorticated Earthnut cake	41.3	73.0	8 10	9 0	4 3	4 4	2 5	2 6
Extracted Soya bean meal	38.3	64.0	10 6	10 5	5 6	5 5	3 3	3 3
Fish meal (60% protein)	53.0	58.9	16 8	16 9	6 3	6 4	5 8	5 8
Meat meal (60% protein)	55.0	61.0	15 2	15 1	5 6	5 6	5 0	4 11
Meat & bone meal (40% protein)	36.0	44.0	9 6	9 9	5 3	5 5	4 4	4 5
Medium Protein Foods								
Palm kernel cake	16.95	73.2	8 4	8 2	9 10	9 8	2 3	2 3
Palm kernel meal	16.55	71.3	8 4	8 4	10 1	10 1	2 4	2 4
Starchy Foods								
Maize	7.65	77.6	6 6	6 10	17 0	17 10	1 8	1 9
Maize meal	7.65	77.6	6 9	7 0	17 8	18 4	1 9	1 10
Flaked maize	9.2	84.0	7 5	7 8	16 2	16 8	1 9	1 10
Wheat	9.6	71.6	6 5	6 5	13 4	13 4	1 10	1 10
Red bran	10.0	42.6	7 3	7 7	14 6	15 2	3 5	3 7
White bran	10.0	42.6	8 8	9 0	17 4	18 0	4 1	4 3
Brown Pollard	10.85	56.5	7 3	7 4	13 4	13 6	2 7	2 7
White pollard	10.85	56.5	8 2	8 3	15 0	15 3	2 11	2 11
Barley meal	7.3	71.4	7 6	7 7	20 6	20 9	2 1	2 2
Oats	7.6	59.5	6 6	6 8	17 1	17 6	2 2	2 3
Crushed oats	7.6	59.5	7 2	7 5	18 10	19 6	2 5	2 6
Tapioca root flour	1.2	83.5	6 10	6 6	113 11	108 4	1 8	1 7
Non-Concentrates								
Potatoes	0.85	18.5	2 5½	2 10½	57 10	67 2	2 8	3 1
Upland hay	4.9	29.0	3 5½	3 5	14 1½	13 11	2 5	2 4½
Meadow hay	4.7	37.0	2 10½	2 10½	12 1½	12 4	1 6½	1 7
Oat straw	0.5	21.0	1 10½	2 1½	74 2	85 10	1 9	2 1

The object of the foregoing tables, besides providing information regarding the prices of feeding stuffs and the trend of prices, is to give purchasers a

guide as to the economic purchase of supplies. It should be understood that the price per ton is not a sound basis on which to judge whether or not a particular food or grade of a particular food is good value for money. The composition of the foods is the only basis on which different grades can be compared. The value of foods of different kinds, but of the same nature in reference to market prices, can also be compared on this basis.

In the case of an artificial manure which supplies only one fertilising ingredient as, for example, sulphate of ammonia, which supplies nitrogen, the cost of the unit of nitrogen at the price charged can be determined quite readily by dividing the price per ton by the percentage of nitrogen in the sample, and the figure thus obtained is the cost of a unit of nitrogen. By this method the most economical source of nitrogen can be ascertained. Similarly, in the cases of phosphatic and potassic manures.

With feeding stuffs, however, the same method cannot be applied to determine comparative values. This is because every feeding stuff contains three important food constituents in varying proportions. These are (1) carbohydrates, (2) oils or fats, and (3) proteins or albuminoids. The carbohydrates comprise a group of substances such as starch, sugar and cellulose. These substances supply heat or energy to the animal, and the surplus goes to form fat. They are the fuel which the animal requires to keep the body "fires" burning. The oils of a feeding stuff are also heat and energy suppliers, and the surplus is stored as fat. The oils are approximately $2\frac{1}{2}$ times more valuable than the carbohydrates as heat and energy producers, but excess in a ration may lower its digestibility and cause digestive troubles. The proteins are the most valuable and most expensive food constituent. They contain nitrogen and are the part of the food from which products which contain protein are chiefly made. Thus the protein products, such as lean meat, milk and eggs, are formed principally from protein, and young, growing animals, dairy cows and laying hens must have an adequate quantity of protein for full growth, development and production.

While all animals require a certain amount of carbohydrates, oils and proteins, the relative amounts depend on the class of stock. For example, a two-year-old fattening bullock requires much less protein than a dairy cow in milk and a fattening chicken less than a laying pullet.

There are wide differences in the composition of the different kinds of feeding stuffs. Some are rich in carbohydrates and, therefore, particularly valuable for fattening purposes. These include oats, maize, barley and wheat, and their products. Others are rich in protein and are valuable for producing flesh, milk and eggs. These include decorticated cotton cake, decorticated earthnut cake, meat meal and soya bean meal.

In the following table the composition of some of the commonly used feeding stuffs is shown—

	Water.	Protein.	Oil.	Carbohydrates.
Non-Concentrates				
Swede turnips ...	88	1	0.2	9
Potatoes ...	75	2	0.1	21
Cabbage ...	89	1.5	0.5	8
Oat Straw ...	14	4	2	37
Meadow hay ...	10	10	3	45
Pasture grass ...	80	3.5	0.8	10
Fattening Foods				
Crushed oats ...	13	9	6	60
Maize meal ...	12	10	4	70
Barley meal ...	13	12	2	66
Pollard ...	13	15	5	57
Flesh forming foods				
Decorticated Cotton cake ...	9	40	9	26
Decorticated Earthnut cake ...	10	46	7	23
Meat meal ...	11	60	6	—
Soya bean meal ...	11	44	1.5	32

The problem confronting the purchaser of feeding stuffs, who is concerned with the business of getting best value for money, is one which is much more difficult to solve than is the case with artificial fertilisers. There are at least four aspects of the problem to be considered :

- (1) The quality of the different foods offered for sale. This can be determined by reference to the particulars of composition which a seller must give a purchaser in accordance with the Fertilisers and Feeding Stuffs Act.
- (2) The physical condition of the foods, and if fresh or stale.
- (3) The suitability of the foods for the purpose in view.
- (4) The comparative values of the foods at the prices quoted.

The chief concern of this section of the Report is comparative values and, therefore, that aspect of the problem will be considered specifically.

The proteins play a part in the nutrition of the animal which cannot be taken by either carbohydrates or oils. In addition to this, the proteins, carbohydrates and oils have very different values for the production of energy or fat. It therefore follows that the simple procedure of totalling the percentages of these three ingredients and dividing this total into the price per ton in order to obtain a value for a unit of the food-stuff is quite unsound. Various methods have been used to compare the values of different feeding stuffs, but none is completely satisfactory. For practical purposes the least cumbersome is the

method whereby the food-stuffs are placed in groups of similar composition, and the values of the members of each group are then compared by consideration of (a) their protein equivalents, and (b) their starch equivalents. The starch equivalent is the number of pounds of starch which would be required to produce the same amount of "fat" in an animal as 100 pounds of the food-stuff in question. It is essentially a measure of the fat-producing value of the food-stuff. The protein equivalent is the number of pounds of digestible true protein, plus half the number of pounds of non-protein nitrogenous substances such as amides, present in 100 pounds of the foodstuff. It is a measure of the value of the food-stuff to the animal as a source of protein.

By this method all foods can be reduced to comparable standards based on (1) the protein equivalent, and (2) the starch equivalent.

The next stage in comparing values is to determine the cost of a unit of protein equivalent and of starch equivalent in the different foods which are being compared, and to enable the reader to do this the protein and starch equivalent figures for the different foods are given in the table on page 194, and also the cost per unit of protein equivalent and of starch equivalent in each case. These costs have been determined by dividing the protein equivalent figure and the starch equivalent figure, respectively, into the current price per ton, and the lower the quotient figures thus obtained the cheaper is the particular food as a source of protein or of starch equivalent as the case may be.

However, it would be quite misleading to compare the cost of a unit of protein equivalent in a protein food (which is purchased principally for its protein) with the cost of a similar unit in a starchy food. In other words, foods such as maize meal and pollard cannot be compared on the basis of cost of protein equivalent with foods such as decorticated cotton cake and meat meal.

The best course to adopt is to consider for what purpose the particular food is required, decide what foods are suitable for that purpose, examine the samples of these different foods which are offered and, if all appear to be satisfactory, apply the unit value system of determining which one provides protein equivalent or starch equivalent at the cheapest rate. A few examples may be helpful in explaining the procedure.

- (1) Suppose it is intended to purchase a protein food for the purpose of balancing a ration for dairy cows. The protein foods suitable for dairy cows are decorticated cotton cake, decorticated earthnut cake and soya bean meal. From the table on page 194 it is seen that at the current average prices of these foods the cost of the unit of protein equivalent in each is as follows:—

Decorticated cotton cake	...	...	5/7d.
Decorticated earthnut cake	...	...	4/3d.
Soya bean meal	...	...	5/6d.

Accordingly decorticated earthnut cake is the cheapest source of protein.

- (2) A protein food is required as a milk substitute to balance the ration for fattening pigs. The foods suitable for this purpose are soya bean meal, meat meal and meat and bone meal. Referring again to the table, it is seen that at the current average prices of these foods the cost of the unit of protein equivalent in each is as follows:—

Soya bean meal	...	...	5/6d.
Meat meal (60% protein)	...	...	5/6d.
Meat and bone meal (40% protein)	...	...	5/3d.

This shows that at the respective prices per ton ruling at present, all three supply protein at about the same cost. It should be noted, however, that in the case of meat meal and meat and bone meal, the former should be used in preference to the latter, since 1 cwt. of it in the meal mixture will provide as much protein as $1\frac{1}{2}$ cwt. of the latter. Besides, having usually a lower content of oil than the 40% protein grade, the 60% meat meal is likely to prove more satisfactory than the lower grade, both from the thriving point of view and as regards producing bacon of good quality. The use of the lower grade of meat and bone meal in mixtures for the feeding of pigs is not recommended.

- (3) Whether is it more economical to feed white pollard than brown pollard or white bran than red bran, even though the prices per ton of the white grades are higher than those of the brown or red grades? The figures in the table show that the cost of both the unit of protein equivalent and of starch equivalent is less for the brown pollard than the white, and less for the red than the white bran. It follows, therefore, that at current prices the coloured grades of pollard and bran are cheaper than the white grades. It should be remembered in this connection, however, that the comparison of costs in these cases has been made on the assumption that the composition of the coloured grades is the same as that of the white grades. A pollard containing say, 8 per cent. fibre, even if of a white colour, would have a far lower feeding value than one containing only 4 per cent. of fibre. Colour is not a guide as to the feeding value of pollard or bran.

TRADE AND PRICES OF LIVE STOCK AT BELFAST AUCTION MARTS.

Supplies of fat cattle at the Belfast sale yards during the month of June were much heavier than in May, the sales averaging over 800 head in each week. Business showed considerable fluctuation due to the state of pastures and also to the size and quality of the offerings. In the first half of the month demand was dull, especially in the shipping end, as buyers were operating on a restricted scale. Prices fell in some cases by as much as 4/- per cwt., and although late in the month demand recovered with the arrival of rain, prices did not react to the May levels. On the whole, the average price for June was 1/11d. lower than that for May at 38/11d. per live cwt. In the second half of the month the enquiry for fat cattle was quite brisk, and prices improved. The price ranges per live cwt. at the close of the month were, generally :

Top quality and super grade, 40/- to 41/6d.,

Good commercial cattle, 38/6d. to 40/-, and

Rough and unfinished stock, 37/- to 38/6d.

The following table shows the average prices for fat cattle during last month, compared with those ruling at the corresponding date a year ago :—

<i>Week ended</i>	<i>per cwt.</i>	<i>Week ended</i>	<i>per cwt.</i>
10th June, 1939	... 38/11	11th June, 1938	... 41/1
17th " "	... 38/3	18th " "	... 40/2
24th " "	... 39/6	25th " "	... 39/2
1st July, "	... 38/11	2nd July, "	... 38/3
Average for month	... <u>38/11</u>	Average for month	... <u>39/7</u>
8th July, 1939	... 39/2	9th July, 1938	... 39/-

Supplies of other livestock at the Belfast sale yards during June were decreased, except in the case of dairy cattle and fat sheep and lambs. Trade for store cattle was fairly good up to the last week of the month, when the enquiry for stores at English and Scottish centres eased off. Late rates were barely maintained for the smaller offering.

Fat cows and bulls at the sales followed the trend of fat cattle prices, and cheapened considerably on the month.

Dairy cattle were in much heavier supply throughout the month. Demand showed improvement, and good clearances were made at prices that on balance were 15/- to £1 per head higher than a month earlier.

Seasonal increases were recorded in the numbers of fat sheep and lambs. Quality lambs were easy to sell at fully late rates, but the demand for mutton slackened, and prices cheapened accordingly. In some instances quotations were as much as 5/- lower than in May. This seasonal downward trend, however, was less marked than at this time last year. The cooler and damper weather conditions experienced later in the month reacted favourably on the trade in this section, and good clearances were made at satisfactory prices.

Price ranges for fat cows, store cattle, dairy cattle, and fat sheep and lambs are shown in the table on the next page.

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PRICES OF OTHER STOCK AT THE BELFAST AUCTION MARTS.

Description		Week ended 10-6-39	Week ended 17-6-39	Week ended 24-6-39	Week ended 1-7-39
Fat Cows ...	...	£12 to £17-5 £9 to £13	£12 to £18 £9 to £14	£14 to £18 £11 to £14	£14 to £19 £11 to £14
Store Cattle :					
Large Forward Stores ...	...	Range of 1st quality 2nd "	£13-10 to £15 £12-5 to £13-5	£15 to £16-10 £13-5 to £14-5	£14-10 to £16 £11 to £13-10
Younger Stores ...	...	1st 2nd "	£10-10 to £11-15 £9-10 to £10	£10-10 to £12-10 £8 to £10	£9 to £10-10 £7 to £8-10
Dairy Cattle :					
Milch Cows ...	...	Range of 1st quality 2nd "	£20 to £25-10 £16 to £19	£19 to £24 £15 to £18	£20 to £25 £16 to £19
Springers ...	...	1st 2nd "	£17 to £18 £15 to £16-10	£18 to £21 £15 to £17-10	£18 to £20 £15 to £17
Sheep and Lambs :					
Crossbred and White Ewes	...	Range of 1st quality	32/- to 40/- 28/- to 31/-	30/- to 40/- 25/- to 33/-	32/- to 40/- 26/- to 34/-
Blackface Ewes ...	...	1st 2nd "	22/- to 37/- 15/- to 27/-	26/- to 34/- 21/- to 28/-	26/- to 32/- 20/- to 27/-
Crossbred and White Lambs	...	1st 2nd "	32/- to 46/- 24/- to 35/-	32/- to 48/- 26/- to 37/-	32/- to 44/- 26/- to 36/-
Crossbred and White Hoggets	...	1st 2nd "	35/- to 40/- 30/- to 34/-	32/- to 40/- 25/- to 30/-	32/- to 40/- 26/- to 31/-
Blackface Hoggets	...	1st 2nd "	21/- to 26/- 15/6 to 25/6	21/- to 26/6 16/- to 20/-	20/- to 25/- 32/- to 42/-
Rams	...	1st 2nd "	30/- to 41/- 28/- to 34/-	34/- to 46/- 30/- to 40/-	32/- to 42/- 27/6 to 35/-

PRICES OF LIVE STOCK.

Average prices of Live Stock at Fairs during the month of June, 1939.

Date	Fair	Calves (under 9 months)	Store Cattle	Fat Cattle (18 months and over)	Springers		Milch Cows	Fat Lambs (under 12 months)	Fat Sheep (over 2 years)	Young Pigs
					Cows	Heifers				
		Per head £ s.	Per cwt. Live weight	Per cwt. Live weight	Per head £ s.	Per head £ s.	Per head £ s.	Per head £ s.	Per head £ s.	Per head £ s.
1	Ballymoney	7 3/6	36/3 to 40/-	39/-	15 0	14 0	13 5	†1 7	12/6	1 12/6
1	Strabane ...	7 0	37/6 to 40/-	39/-	13 0	12 0	13 10	—	—	—
2	May ...	—	35/- to 42/-	39/-	15 17/6	15 7/6	14 17/6	—	—	—
6	Omagh ...	6 13/9	39/- to 40/-	41/-	15 10	15 0	15 10	†1 15	†1 10	—
7	Rathfriland	6 18/3	36/- to 40/-	37/6	16 0	16 0	15 10	†1 6/3	†1 7/6	—
8	Irvinestown	7 8/3	36/- to 39/-	37/6	14 0	13 5	—	†1 18	—	1 10
9	Ballygawley	—	27/6 to 40/-	—	13 10	—	13 0	†1 7/6	—	1 12/6
10	Enniskillen	6 8/9	34/- to 40/-	37/6	15 0	14 0	14 0	—	—	1 17/6
12	Limavady	—	34/- to 41/-	38/-	16 0	—	—	*1 15	*1 15	1 14
13	Dungiven	—	34/6 to 41/-	38/-	—	15 0	—	—	—	1 6
14	Crossgar ...	—	36/- to 38/-	—	17 0	16 0	—	—	—	1 8
14	Kilrea ...	5 13/9	34/- to 40/-	39/-	15 0	14 10	15 0	—	—	1 15
15	Ballynahinch	—	36/- to 38/-	—	17 10	16 0	16 10	—	—	1 11/6
17	Londonderry	—	34/6 to 40/-	—	16 0	—	—	—	—	1 15
17	Portadown	5 17/6	35/- to 38/-	38/-	18 0	16 0	17 0	—	—	1 15
19	Camlough	5 0	35/- to 40/-	37/-	15 10	14 0	12 10	*1 5	*1 10	—
21	Lisnaskea	5 13/3	31/- to 37/-	36/-	16 0	15 0	13 10	—	—	1 12
21	Moneymore	6 9	35/- to 43/-	37/-	14 10	13 10	14 0	*1 7	*1 8	—
22	Fintona ...	6 15	40/- to 41/-	40/-	15 10	14 10	14 0	*1 10	—	1 15
26	Banbridge	5 17/6	34/- to 40/-	37/-	16 5	14 5	16 0	†1 4/6	†1 1	1 13/6
29	Antrim ...	—	35/- to 40/-	37/6	19 0	19 0	—	—	—	1 10
30	Castlederg	6 0	35/- to 37/6	37/-	14 0	13 0	—	†1 7	—	1 5
30	Killylea ...	—	30/- to 39/6	37/-	15 10	—	15 0	†1 6/6	—	—
July 1	Ballymena	6 14/9	34/- to 42/-	—	21 0	18 10	20 0	—	—	1 12/6

* Long wool.

† Downs and Crossbreds.

‡ Mountain.

SHIPMENTS OF LIVE STOCK.

Statement showing the Shipments of Live Stock from Northern Ireland Ports during the following periods : Months of June, 1939, May, 1939, June, 1938; Six Months ended 30th June, 1939, and 30th June, 1938.

PORTS OF :—	CATTLE						SHEEP			PIGS			Horses	
	Fat	Stores	Milch Cows	Springers	Calves	Total	Fat	Stores	Lambs	Total	Fat	Stores		Total
Belfast ...	3,185	4,316	1,617	103	—	9,221	6	—	6,708	6,714	4,295	1	4,296	413
Larne ...	15	1,375	—	2	—	1,392	—	—	4	3,378	3,382	422	1,682	52
Londonderry ...	46	5,278	70	44	1,356	6,794	37	—	4,508	4,545	297	30	327	25
Newry ...	45	242	—	—	—	287	—	—	146	146	—	—	—	—
Total, June, 1939 ...	3,291	11,211	1,687	149	1,356	17,694	43	+	14,740	14,787	5,852	453	6,305	490
Total, May, 1939 ...	3,189	16,768	1,267	195	2,190	23,609	290	—	4,974	5,264	4,491	—	4,491	555
Total, June, 1938 ...	4,225	13,473	1,543	334	668	20,243	249	—	11,753	12,002	5,931	96	6,027	281
Total, Six months ended 30th June, 1939 ...	32,266	88,728	7,232	644	5,184	134,054	8,265	4	20,112	28,381	27,196	619	27,815	1,868
Total, Six months ended 30th June, 1938 ...	29,597	78,720	6,874	794	2,475	119,460	14,402	—	16,167	30,569	45,183	832	46,015	1,619

IMPORTS AND EXPORTS.

Table showing the Imports and Exports through Northern Ireland ports of certain Agricultural Products during the months ended 31st May, 1939, and the five months ended 31st May, 1939, with comparative figures for the corresponding periods in 1938. This information also includes trade with Eire across the land boundary.

(These figures are supplied through the courtesy of the Ministry of Commerce, and are subject to revision).

COMMODITY	IMPORTS				EXPORTS			
	Month ended 31st May.		Five Months ended 31st May.		Month ended 31st May.		Five Months ended 31st May.	
	1939	1938	1939	1938	1939	1938	1939	1938
Bacon cwt.s.	4,119	4,442	19,631	17,629	45,219	35,958	205,502	152,111
Hams cwt.s.	1,321	1,876	4,694	6,795	12,604	14,701	51,657	56,369
Pork cwt.s.	44	15	759	661	4,111	2,990	19,371	12,578
Butter cwt.s.	23,165	25,104	74,909	88,081	185	159	727	1,063
Eggs Gt. hds.	132,640	117,061	482,551	534,401	571,890	566,945	1,671,370	1,628,984
Oat Products (inc. Oatmeal) cwt.s.	2,790	1,169	13,479	8,271	4,098	3,759	23,183	26,369
Potatoes tons	243	980	1,365	1,926	*15,656	*20,484	*71,108	*116,862
Poultry cwt.s.	129	120	1,123	1,102	10,193	10,329	86,086	90,195
Grass Seeds cwt.s.	1,097	2,888	6,612	12,973	38,327	36,844	194,617	225,134
Cream Galls.	—	—	—	—	†17,218	†22,302	†108,341	†102,782

* These figures represent the quantities inspected by the Ministry of Agriculture for shipment.

† These figures are compiled from the Monthly Leading Returns supplied by Creameries in Northern Ireland.

Table showing the numbers of Live Stock (1) exposed for sale, and (2) sold at 21 fairs in Northern Ireland, during the months of June and May, 1939, and June, 1938.

Description of Live Stock	June, 1939		May, 1939		June, 1938	
	Number exposed for sale	Number sold	Number exposed for sale	Number sold	Number Exposed for sale	Number sold
Store Cattle ...	8,157	5,207	9,195	6,421	9,050	4,622
Fat Cattle ...	1,187	969	1,177	1,073	1,045	885
Dairy Cattle ...	1,338	928	1,274	914	1,388	963
Sheep ...	473	229	825	506	607	300
Lambs ...	1,243	932	237	164	932	667
Young Pigs ...	3,843	2,841	3,490	2,883	4,131	3,195

ACCOUNT OF TRADE AT FAIRS.

The supply of store cattle at fairs last month was of medium dimensions for the time of year, although smaller than in May. Demand was quiet, as is normal for stores at this time of year, and prices, except for the best, inclined easier. Small and medium-sized cattle, yearling and six-quarter-old, were in best demand at fully late rates, but other sorts were generally cheaper. Good large stores were easy to clear, and fetched recent prices, but very few of good quality were exposed for sale. The shipping demand was rather easier, buyers concentrating on quality six-quarter-old types for fattening. The condition and quality of the stock were up to a fair standard all month.

Supplies of beef cattle were variable at fair centres, but on the aggregate larger numbers were offered than a year ago. The quality of the stock was not quite so good as usual, there being very few really good animals among the offering. Trade was only fair, and prices ruled on slightly lower levels than in May. Well finished medium-weight cattle of between 8 cwts. and 10 cwts. in weight again attracted most attention from buyers.

Small to medium turnouts of dairy stock met a brisk enquiry for the best at fully late rates. Good young cows and heifers having a milk-producing appearance were quick to sell both for the home and cross-channel markets, but other sorts were slower to clear and frequently cheaper.

Larger entries of sheep and lambs were offered than in May. Good quality fat lambs showing flesh sold fairly readily, but even for these prices were lower. In other departments business was very dull and values reduced.

Normal supplies of young pigs at fairs met a moderate enquiry at the beginning of June, but demand worsened, and towards the close of the month sales were slow and prices lower. Store pigs continued a fairly steady trade at prices tending easier.

A variable business was done in breeding sows at last month's fairs. The majority found purchasers at prices ranging from £6 to £10 10s. 0d. per head.

17th July, 1939

ULSTER DAIRY SCHOOL, COOKSTOWN.

U. D. S.

USEFUL and practical courses of instruction in poultry-keeping, dairying and domestic science are provided for girls at this School.

DEFINITE advantages are derived from a course of training, whether the object is to return home or to take employment elsewhere.

SCHOOL fees by reason of the fact that entry is by partial scholarship are only £4 : 4 : 0 per term of 15 weeks, inclusive of board and residence.

Candidates for admission should obtain copies of the prospectus from the Ministry of Agriculture, Stormont, Belfast, and send in application forms without delay. Next term begins on 12th September, 1939.

MINISTRY OF AGRICULTURE.

List of Leaflets and other Publications

AGRICULTURAL EDUCATION.

- Leaflet
No. 60 Advantages of Winter Agricultural Classes.
Prospectus of Ulster Dairy School.
Prospectus of North West School.
Prospectus of Greenmount Agricultural and Horticultural College.
Scholarships in Agricultural Science.
Scholarships in Creamery Management.
Scholarships in Horticulture.

Leaflet CATTLE.

- No. 54 The Breeding and Rearing of Calves.
" 5 The Dishorning of Calves.

- Circular
No. 5 Why Pay a Tax on the Horns of Cattle?

- Leaflet
No. 19 How to Feed Linseed.
" 48 The Fattening of Cattle.
" 61 The Care and Management of Bulls.
" 82 White Scour in Calves.
" 70 Ringworm.
" 80 Hoose or Husk in Farm Stock.
" 13 Contagious Abortion in Cattle.
" 41 Blackleg, Blackquarter or Quarterill.
" 64 The Destruction of Warble Fly Maggots in Cattle.

- Circular
No. 13 The Ox-Warble Fly.
Guide to the Live Stock Breeding Act (Northern Ireland), 1922.

Leaflet DAIRYING.

- No. 16 The Feeding of Dairy Cows.
" 42 The Purchase of Balanced Rations for Dairy Cows.
" 36 Advantages of Milk Recording.
" 39 The Production of Clean Milk.
" 81 The Construction of Cow Houses.
" 78 Graded Milk.
" 77 Licensing of Milk Producers and Distributors.
" 51 Butter-making on the Farm.
" 14 Cheese-making on the Farm.

Leaflet POULTRY AND EGGS.

- No. 20 The Hatching and Rearing of Chickens.
" 2 Improvement of Farm Poultry.
" 3 Feeding for Egg Production.
" 21 The Uses and Advantages of Portable Poultry Houses.
" 28 The Construction of a Laying House for Poultry.
" 29 The Selection and Breeding of Laying Hens.
" 83 The Care, Management and Feeding of Poultry Breeding Stock.
" 46 Hints for Winter Egg Production.
" 57 How to have Eggs of First Quality
" 56 Identification of Egg Supplies.
" 27 How to Keep Eggs Clean.

- Talk to Producers
No. 39 Hints on the care and handling of Eggs for Market.

- Leaflet
No. 59 Bacillary White Diarrhoea. (Pullorum Disease.)
" 52 Gapes in Chickens.
" 31 Coccidiosis in Poultry.
" 43 Tuberculosis in Poultry.
" 32 Roup of Poultry (Fowl Pox).
" 18 Marketing of Dead Poultry.
" 37 The Raising and Fattening of Turkeys.
Report on Stormont Egg Laying Test.
List of Accredited Poultry Farms in Northern Ireland.

Leaflet PIGS.

- No. 45 The Breeding and Rearing of Pigs.
" 35 The Fattening of Pigs.
" 75 Pig Production and the Pigs Marketing Scheme.

- Talk to Producers
No. 41 Feeding of Pigs in Relation to Bacon Quality.

Leaflet SHEEP.

- No. 47 The Care and Management of Sheep.
" 63 Sheep—Castration, Docking, Foot-Rot and Care of Feet.
" 23 The Handling and Care of Wool.
" 24 Fluke in Sheep.

Leaflet HORSES.

- No. 25 The Rearing and Management of Young Horses.
Register of Premium Stallions in Northern Ireland.

FARM CROPS.

- Lists of Growers of Certified Crops of Potatoes.

- Leaflet
No. 44 New Varieties of Farm Crops.
" 86 Manures and the Manuring of Farm Crops
" 7 Potato Trials.
" 73 The Propagation and Maintenance of Healthy Stocks of Potatoes.
" 87 The Production of Potatoes for Seed.
" 50 Potato Blight.
" 74 New Pure Strains of Flax.
" 1 Flax Seed.
" 22 Leather-jacket Grubs.
" 38 The Destruction of Charlock.
" 55 Destruction of Ragwort or Benweed.

- Circular
No. 9 Smut in Oats.
" 8 Basic Slag.

- Leaflet
No. 84 Lime and Liming.
" 40 The Laying down and Management of Temporary Pastures.
" 90 The Improvement of Grassland.

FRUIT, VEGETABLES AND BEES.

- Leaflet
No. 15 Suitable Varieties of Fruit.
" 34 The Pruning of Apple Trees.
" 9 The Renovation of Orchards.
" 33 Spraying Calendar for Apple Orchards.
" 10 Fruit Tree Pests—Capsid Bugs.
" 11 Fruit Tree Pests—Aphides and Apple Sucker.
" 12 Fruit Tree Pests—Caterpillars.
" 79 The Picking and Storing of Apples.
" 6 The Packing of Apples in Standard Boxes.
" 65 The Packing of Apples in Barrels.
" 49 American Gooseberry Mildew.
" 68 The Cultivation of Strawberries.
" 71 The Cultivation of Raspberries.
" 88 Tomato Growing.
" 67 The Cultivation of Vegetables.
" 89 Some Pests and Diseases of Vegetable Crops.
" 17 Home Bottling of Fruits and Vegetables.
" 76 Acarine (Isle of Wight) Disease of Bees.
Guide to the Marketing of Fruit Act.

Leaflet FORESTRY.

- No. 62 The Production of Timber on the Farm.
" 72 Tree Planting for Shelter and Ornament.
" 85 The Growing of Trees.

GENERAL.

- Circular
No. 11 Fertilisers and Feeding Stuffs Act—General Summary.
" 10 Purchase of Fertilisers and Feeding Stuffs.
" 58 How the Fertilisers and Feeding Stuffs Act benefits the Farmer.

- Leaflet
No. 66 Seed Testing Facilities for Traders.
" 26 Ordnance Survey Maps for Farmers.

Any of the above publications may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

The following publications can be obtained from His Majesty's Stationery Office, 80 Chichester Street, Belfast, at the prices stated:—

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| (1) The Annual Report of the Ministry of Agriculture for Northern Ireland. | Price, 2/6 net. |
| (2) Annual Report upon the Agricultural Statistics of Northern Ireland. | Price, 2/- net. |
| (3) The Journal of the Ministry of Agriculture for Northern Ireland. | Price, 2/6 net. |
| (4) The Agricultural Output of Northern Ireland, 1925. | Price, 2/6 net. |

